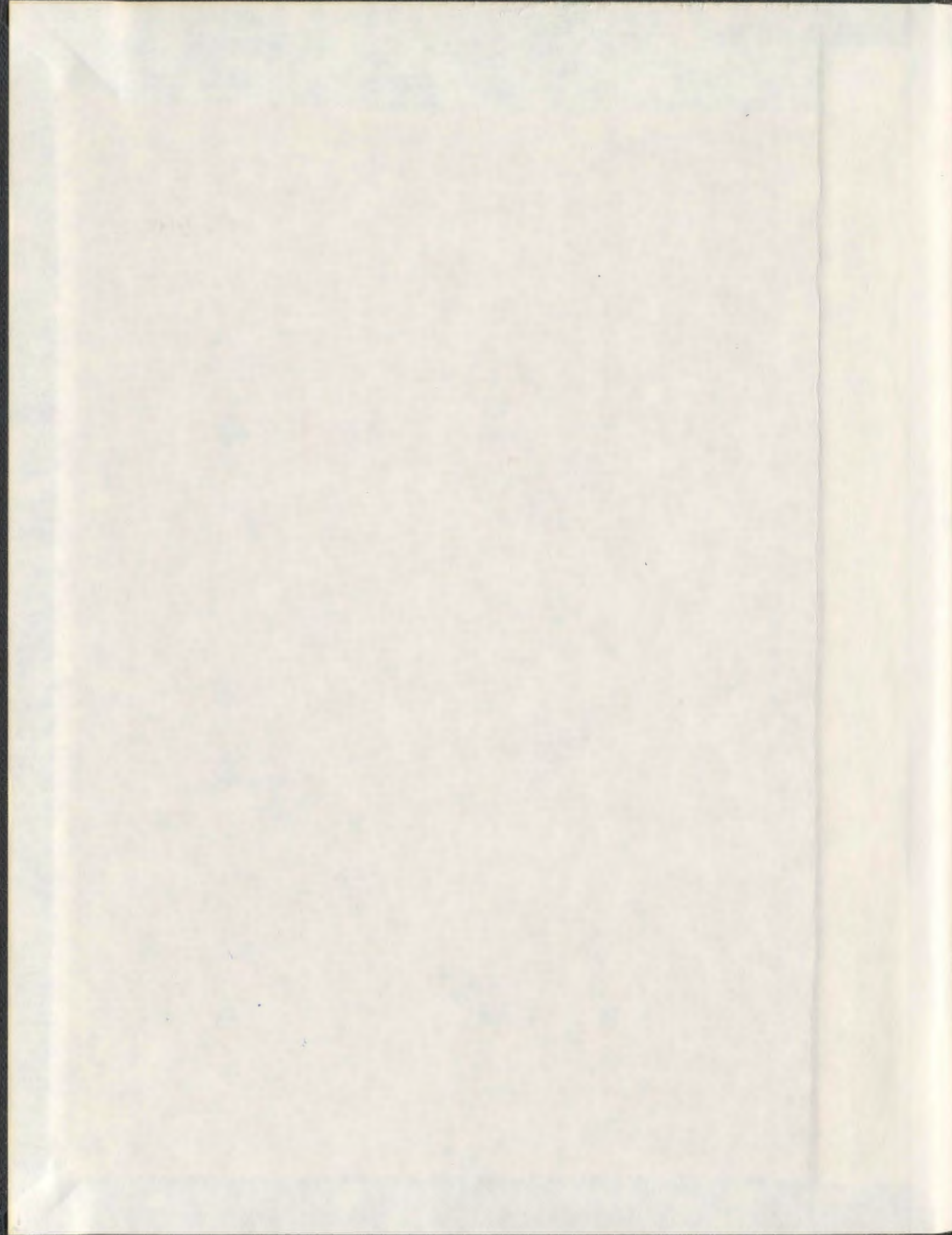


COMPROMISING SITUATIONS:
PARTICIPATION AND POLITICS IN THE
SUSTAINABLE DEVELOPMENT OF
CANADA'S OCEANS

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**Compromising Situations: Participation and Politics in the
Sustainable Development of Canada's Oceans**

by

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Abstract

The early 1990s brought sweeping changes to the ways in which uses of the ocean are governed in Canada. At that time, the federal government signalled its intention to move away from the highly centralized fisheries management regime that it had employed in the past. In its place, there emerged a comprehensive new ocean management regime that was intended to encourage the development of other ocean industries and bring Canada's domestic legislation into conformity with policy discourses that had become institutionalized through the Rio Earth Summit and subsequent UN conferences. Most prominent among these are: "sustainable development," "the ecosystem approach" and an emphasis on the active participation of "civil society" in environmental management. This dissertation explores the ways in which this new policy approach has been engaged with and, in some cases, contested by variously positioned actors in eastern Newfoundland. I argue that what are ostensibly global managerial discourses are being reshaped within particular localities in support of very different, and often incommensurable, agendas. This suggests that ocean planning is not a value-neutral enterprise, but a politically charged conversation, the outcome of which will have significant and lasting ramifications for those living and working along the coast.

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Figure 1: Map of Newfoundland

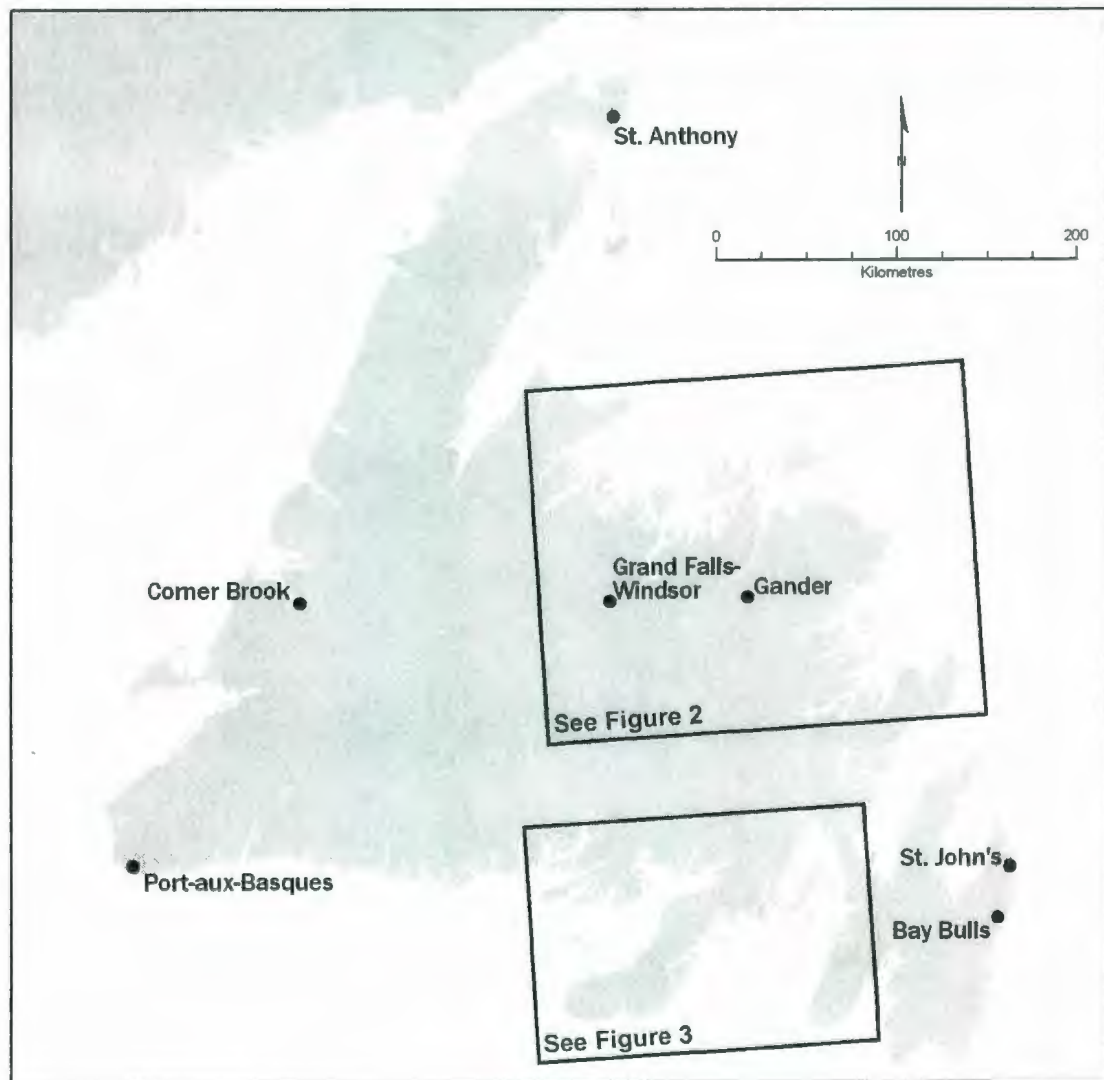


Figure 2: Map of Notre Dame Bay and Bonavista Bay

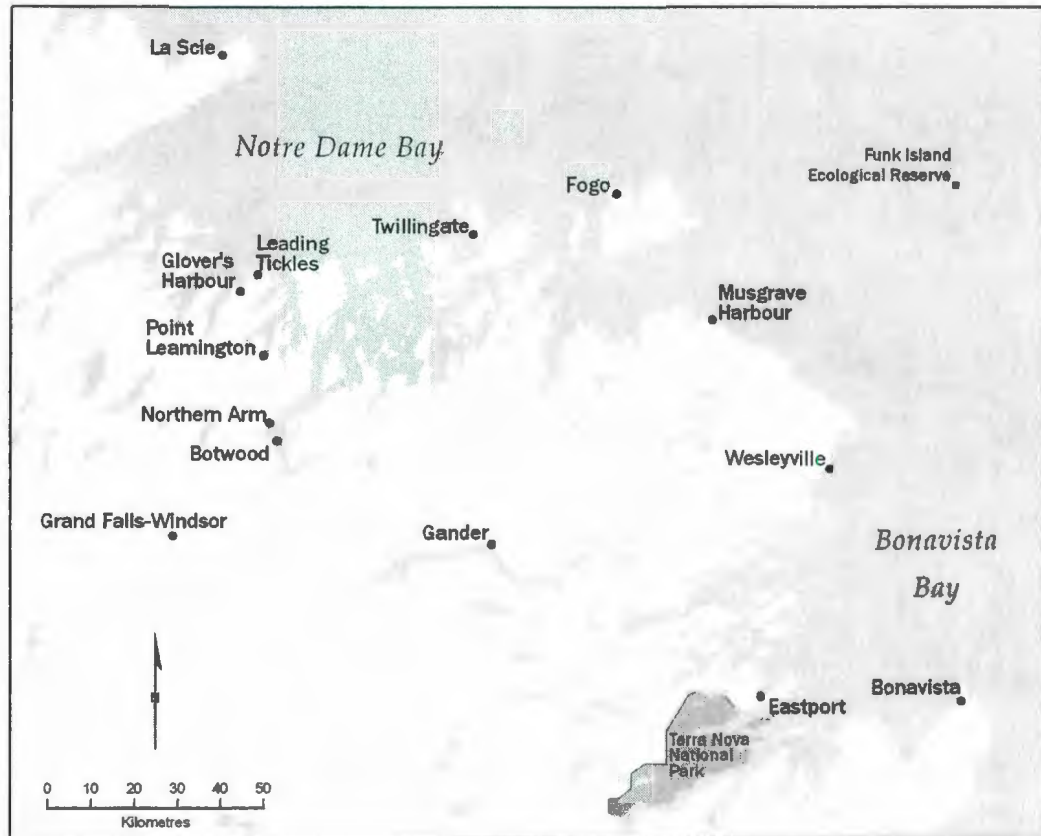
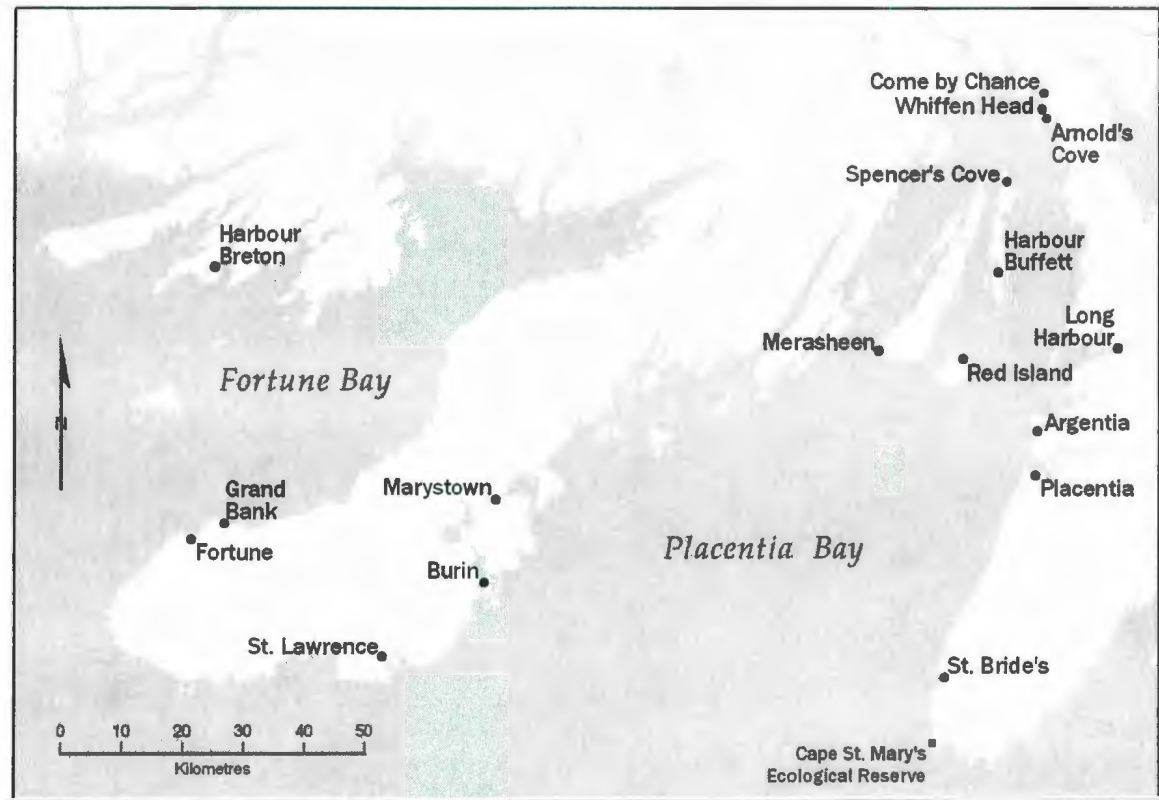


Figure 3: Map of Fortune Bay and Placentia Bay



List of Abbreviations

AFPR: Atlantic Fisheries Policy Review
AGAP: Atlantic Groundfish Adjustment Program.
AOI: Area of Interest
CAPP: Canadian Association of Petroleum Producers
C-NLOPB: Canada-Newfoundland and Labrador Offshore Petroleum Board
COS: Canada's Oceans Strategy
CSR: Corporate Social Responsibility
DFO: Department of Fisheries and Oceans
EEZ: Exclusive Economic Zone
ESSIM: Eastern Scotian Shelf Integrated Management
FFAW: Fish, Food and Allied Workers Union
FCC: Fisheries Council of Canada
FRCC: Fisheries Research Conservation Council
FOC: Fisheries and Oceans Canada
FPI: Fishery Products International
GPS: Geographic Positioning System
IM: Integrated Management
ISER: Institute of Social and Economic Research
LNG: Liquified Natural Gas
LOMA: Large Ocean Management Area
MPA: Marine Protected Area
NAFTA: North American Free Trade Agreement
NAIA: Newfoundland Aquaculture Industry Association
NCARP: Northern Cod Adjustment and Recovery Program
NMCA: National Marine Conservation Area
OAP: Oceans Action Plan
OECD: Organization for Economic Co-Operation and Development
POF: Policy and Operational Framework for Integrated Management of Estuarine, Coastal and Marine Environments in Canada
RAC: Regional Advisory Committee
TAGS: The Atlantic Groundfish Strategy.
UN: United Nations
UNCED: United Nations Conference on Environment and Development
UNCLOS: United Nations Conference on the Law of the Sea
UNEP: United Nations Environment Program
UNFA: United Nations Fisheries Agreement
UNFAO: United Nations Food and Agriculture Organization
WCED: World Commission on Environment and Development
WSSD: World Summit on Sustainable Development

Chapter 1 The United Nations and the New Environmental Management

On June 8th, 1992, John Crosbie, then Canada's Minister of Fisheries and Oceans, held a press conference at the United Nations Conference on Environment and Development in Rio de Janeiro, Brazil. His primary objective was to raise concerns about the severely depleted state of once bountiful cod stocks off the east coast of the island of Newfoundland, and to emphasize the role played by both foreign and domestic overfishing in bringing them to that point.¹ The case embodied many of the broader themes of the "Rio Earth Summit," because it highlighted the complex, transboundary nature of many contemporary environmental problems and underscored the importance of developing new strategies to address them. Crosbie was part of a Canadian delegation that went on to become signatory to a number of multilateral policy agreements at the Summit, including Agenda 21, a comprehensive plan of action intended to bring about "sustainable development" on a global scale.

On July 2nd, a mere twenty-four days later, Crosbie held a second press conference in his hometown of St. John's, the capital city of the province of Newfoundland and Labrador. Amid vocal protests from fishery workers, Crosbie announced the federal government's decision to declare a moratorium on the commercial harvesting of northern cod, along with several other species of groundfish.² In total, the moratorium directly affected the livelihoods of more than thirty thousand fishery workers living in coastal communities in the province, where fishing and fish processing had long been at the centre of social and economic life. The unparalleled abundance of cod and other fish

species in the region had been the *raison d'être* behind five hundred years of continuous European presence in a place otherwise known for a harsh climate and a rocky terrain, both of which severely constrained agricultural production.

This short window in Crosbie's life marked a critical turning point in Canada's approach to managing the marine environment. In the aftermath of the cod moratorium, and other fisheries declines elsewhere in Canada, the federal government signalled its intention to move away from the highly centralized *fisheries management* regime that it had employed in the past. In its place, Fisheries and Oceans Canada (formerly known as the Department of Fisheries and Oceans) was tasked with developing a new comprehensive national *ocean management* regime that would focus greater attention on encouraging the development of other ocean industries and would bring Canada's domestic legislation into conformity with policy discourses that had become institutionalized through the Rio Earth Summit and subsequent UN conferences. Most prominent among these are: "sustainable development," the "ecosystem approach" and an emphasis on the active participation of "civil society" in environmental management.

At the heart of this new approach is a radical redistribution of both responsibilities and risks. Historically, Canadian policies were characterized by a top-down approach to social, economic, and environmental planning, in which government departments assumed full responsibility for the research, management and enforcement activities associated with regulating uses of the marine environment. Recent reforms have brought about a more overtly neoliberal approach, in which citizens, communities and

corporations are expected to assume a more active role in managing themselves and their interactions with the environment. In the wake of sweeping federal cutbacks, many of the functions previously performed by government departments have been transferred onto so-called “stakeholder groups” and there has been a growing openness to the use of public-private partnerships as mechanisms through which to fund and implement research, monitoring, and enforcement programs.

Underpinning this new vision is the stated belief that users of particular environments will take better care of their surroundings than distant managers possibly could, since they have a material interest or “stake” in them. Furthermore, it is based on the assumption that it is, in fact, possible to assemble a group of individuals (most of whom are unelected) who are capable of speaking on behalf of larger constituencies, and who can work together to develop a common vision for the future. The position taken here is that this simplistic model of society necessarily underplays the ongoing power struggles between and within designated stakeholder groups, and largely ignores the historical dynamics of inclusion and exclusion that have determined which people are and are not able to make legitimate claims to particular spaces, resources, and livelihoods.

With that point in mind, the remainder of this dissertation explores the ways in which this new policy approach has been engaged with and, in some cases, contested by variously positioned actors in eastern Newfoundland. I argue that what are ostensibly global managerial discourses are being reshaped within particular localities in support of very different, and often incommensurable, agendas. Ocean planning, I conclude, is not a

value-neutral enterprise, but a politically charged conversation, the outcome of which will have significant and lasting ramifications for those living and working in coastal areas, both in Canada and internationally. To provide a theoretical context for this discussion, I will begin by examining three UN-inspired discourses that form the core of Canada's new approach to environmental management: "sustainable development," the "ecosystem approach," and "civil society," paying particular attention to the ways in which these discourses have been engaged with by anthropologists and other critical scholars.

1.1 Sustainable Development

While the term "sustainable development" did not rise to prominence until the late 1980s, many of its core elements began to take root a full two decades earlier. In 1968, the United Nations passed a resolution calling for an international conference to discuss the ways in which industrial development has altered the relationship between human beings and the Earth (Bernstein 2001). The unprecedented economic expansion that had characterized the first half of the twentieth century had ushered in a wide range of new environmental problems in more industrialized countries, and there were growing concerns that unrestrained economic growth was irreparably damaging many of the planet's ecosystems (Conca and Dabelko 1998). These fears were supported by the release of the Club of Rome's widely influential report *The Limits to Growth* in 1972 (Meadows et al. 1972). The report's authors used computer models to investigate a number of ongoing trends which they deemed to be worthy of global concern. They concluded:

If the present growth trends in world population, industrialization, pollution, food production, and resource depletion continue unchanged, the limits to growth on this planet will be reached some time within the next one hundred years...We cannot say with certainty how much longer mankind can postpone initiating deliberate control of his growth before he will have lost the chance for control...The most probable result will be a rather sudden and uncontrollable decline in both population and industrial capacity (ibid: 23).

The group argued that the only hope was to work toward a lasting “economic and ecological equilibrium” designed around the satisfaction of basic needs for all people (1972: 24).

In response to these concerns, the governments of a number of industrialized nations, including Canada, began to argue forcefully that new “global” strategies were necessary in order to address critical environmental problems, many of which extended across national borders (Elliott 1998). This idea was generally resisted by the governments of many of the so-called “developing countries,” especially those of rapidly industrializing nations like China, India, and Brazil. All three expressed worries that they would be asked to pay the price for the sins of wealthier and more heavily industrialized countries by curtailing their own development aspirations. They argued that environmental problems should not be examined in isolation from social and economic concerns, and called for policies that would not significantly restrict existing financial aid and development practices (Bernstein 2001).

Despite these disagreements, representatives of 113 national governments converged on Stockholm, Sweden in 1972 for the “United Nations Conference on the

Human Environment” (UNCHE) (Haas 2002). While there were a number of multinational environmental agreements that preceded this event, the “Stockholm Summit” was the first effort to discuss the health of the Earth’s ecosystems in a broad and systematic way and investigate the environmental impacts of industrial development (Conka and Dabelko 1998). The agreements reached at the conference were codified in the Stockholm Declaration, a list of twenty-six core principles that were intended to guide the development of national policies. It also resulted in the creation of the United Nations Environment Program (UNEP), which was designed to help bring about concrete reforms (ibid.).

The 1970s and 80s gave rise to a variety of smaller multinational gatherings, which developed very different visions for the future of global environmental policy. In 1974 the UNEP and the United Nations Conference on Trade and Development co-sponsored a joint symposium on “Patterns of Resource Use, Environment and Development Strategies” in Cocoyoc, Mexico. The meeting had a strong representation from “developing countries,” and, accordingly, placed both economic development and poverty reduction issues high on the agenda. The Cocoyoc Declaration that emerged from the symposium advocated major structural changes and called upon wealthy countries to increase aid in order to improve living standards in poorer countries and better protect the environment from harm. The Declaration also stressed the importance of the following: satisfying basic human needs by redistributing resources, adopting regulations to curb the pattern of over-consumption in the world’s wealthiest countries, and placing taxes on the

use of the “global commons” for the benefit of the world’s most disadvantaged peoples (Bernstein 2001).

A very different view emerged from the ongoing meetings of the Organization for Economic Co-operation and Development (OECD), whose membership at the time consisted primarily of countries in Western Europe and North America, but also included representation from Australia, New Zealand, and Japan (Organization for Economic Co-operation and Development 2005).³ Instead of blaming economic growth, the OECD countries stressed that many environmental problems could be linked to unrestricted access to natural resources and excessive population pressure in many of the world’s less-developed regions. The organization called upon governments to privatize common property resources in order to stimulate investment and to take steps to reduce birthrates in developing countries. Its member countries also strongly advocated the use of “market-based,” as opposed to “regulatory” approaches to address environmental problems. These, they argued, would facilitate capital investment and create economic growth, and this in turn would generate more wealth with which to tackle environmental problems as they emerged (Bernstein 2001).

This emphasis on firm property rights and market-based strategies is reflective of a larger commitment to neoliberalism in public policy which took hold in many of these countries during this period. Neoliberalism has strong affinities with classical liberalism, which dominated political and economic thinking in Western Europe and North America during the early decades of the twentieth century (Rose 1999; Cortner and Moote 1999;

Jessop 2002; Brown 2003; Boltanski and Chiapello 2005). At the core of these positions is the idea that “the optimizing efforts of self-interested entrepreneurs, efficiently coordinated by self-regulating markets” will produce economic growth and lead to widespread prosperity (Hartwick and Peet 2003: 188).

Faith in the central tenets of classical liberalism began to be undermined by the tumultuous economic period that followed the First World War. Market crashes in Europe and North America in the 1920s and 30s respectively were taken as evidence of the failure of classical economic theory to generate effective social and economic policies. In this climate of uncertainty, many governments began to adopt Keynesian approaches, which emphasized the need for stronger state regulation to “steer” the market and enable them to satisfy key political objectives (Brown 1995; Mouffe 2000). After the Second World War, these ideas led to the emergence of welfare state regimes in many industrialized nations, which invested heavily in subsidies to healthcare, education, public housing, and, in some cases, environmental conservation programs (Clarke 2000).

By the 1960s, however, Chicago School economists such as Milton Friedman (1962), inspired primarily by the earlier writings by Austrian economist Friedrich von Hayek (1944), began to argue for the withdrawal of the state from many of these arenas, claiming that Keynesian interventions invariably lead to inefficiency and stifle individual entrepreneurship (Mouffe 2000; Brown 2001). They took the view that state intervention in the economy “disturbs the *natural tendency* for competition, specialization, and trade to generate economic growth” (Hartwick and Peet 2003, 189, emphasis mine). Instead,

they advocated: “an outward-oriented export economy, organized entirely through markets, along with privatization, trade liberalization and the elimination of state budget deficits” (ibid: 189). In the decades that followed, these ideas stimulated policy reforms in many of the world’s most affluent countries, which brought about a significant reduction in the size of many government bureaucracies, and a renewed emphasis on market-based approaches to program development and financing (Dean and Hindness 1998; Clarke 2000; Harvey 2001, 2007). As Pi-Sunyer has observed, “a dominant feature of ‘late capitalist’ neoliberal systems is the extent to which the interventionist, welfare-oriented state has lost ground and is being replaced by the globalization of economic, as well as social and cultural relations” (2002: 233). In spite of these insights, however, it is important to stress that the state is not a homogeneous entity with a unified agenda. Rather, it is better conceived of as a site of struggle, where complex networks of ideas and agendas converge (Schneider and Schneider 1998; Ferguson and Gupta 2002; Pi-Sunyer 2002; Roseman 2004).

The emergence of the idea of “sustainable development” can be understood as an attempt to incorporate these ideas into the emerging dialogue on global environmental governance. While the term was first introduced in the early 1980s,⁴ it was not until the latter part of the decade that it began to receive widespread attention. In 1987, the idea of sustainable development was made the centerpiece of *Our Common Future*, otherwise known as the Brundtland Report, a highly publicized program of action that was released by the United Nations’ World Commission on Environment and Development (WCED).⁵

The report famously defined sustainable development as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (World Commission on Environment and Development 1987: 43). In opposition to the more radical conclusions of the *Limits to Growth* thesis, the WCED took the view that economic growth and environmental conservation are not inherently antagonistic, and should be understood as complementary. Rather than advocating the curtailment of growth, their report stressed that continuing global economic growth was entirely possible, provided greater attention was paid to the design and export of “green technologies” and the development of more “environmentally friendly forms of production and exchange, which could create economic growth while minimizing environmental damage” (ibid.). The wealth generated through this growth, the report argued, could then be used to increase assistance to “developing countries” in order to help alleviate poverty, which it presented as the root cause of many of the most pressing environmental problems, such as food, water, and energy shortages (ibid.).

The concept of sustainable development was soon formally incorporated into the mandates of the World Bank, the International Monetary Fund, and the World Trade Organization (Bernstein 2001). In each of these cases, economic incentives were presented as the preferred route through which to encourage individuals and companies to adopt more sustainable practices. Once again, the key ideas they emphasized were: the establishment and/or clarification of property rights in order to encourage capital investment and give individuals and companies a greater sense of ownership; the

promotion of export-driven growth; and the use of market mechanisms, such as tax incentives, the “Polluter-Pays Principle”⁶, and tradable pollution credits in order to influence behaviour (ibid.).⁷

This ideological commitment to the view that the market could serve as the engine through which to bring about a more sustainable future was also very much apparent in many of the agreements signed at the United Nations Conference on Environment and Development (UNCED) in 1992 (Hartwick and Peet 2003). The Rio Earth Summit was much larger than its predecessor in Stockholm twenty years earlier. It brought together representatives of 178 countries, as well as more than 1400 non-government organizations (Bernstein 2001). While the WCED report was responsible for bringing the idea of sustainable development to the forefront of the UN’s strategy for global environmental governance, it was not until the Rio Summit that it became fully institutionalized in international agreements and national policies (Elliott 1998, Tsing 2001). The events leading up to the Summit led to the signing of international conventions on climate change and biodiversity, as well as the Rio Declaration on Environment and Development, a list of twenty-seven core principles relating to environment and development issues. Perhaps most significant of all was the adoption of Agenda 21, a wide-ranging policy document that featured chapters on a variety of major environmental concerns (United Nations 1992a).

The Rio Summit culminated in the establishment of the United Nations Commission on Sustainable Development, which was intended to drive the

implementation of Agenda 21 by promoting dialogue, and monitoring the progress of signatory countries (Haas et al. 1992). National governments were expected to develop strategies for implementing the new sustainable development agenda and report regularly to the Commission about their progress (ibid.). Countries were also asked to commit 0.7 percent of their GNP to development aid each year, although few have lived up to this commitment in practice.⁸ While countries did not face sanctions for failing to comply, many countries did create new domestic policies, or modify old ones, in order to incorporate the principle of sustainable development into their existing national frameworks.

Most of these countries reasserted their commitment to sustainable development at the World Summit on Sustainable Development (WSSD), held in Johannesburg, South Africa in 2002. While the Summit produced new recommendations dealing with a range of issues, including renewable energy, agriculture, and ocean conservation, these achievements were tempered by the steadfast refusal of a group of countries, led by the United States, to agree to any binding targets whatsoever (Clover 2002). The position taken by US President George W. Bush in Johannesburg, echoed his father's now infamous statement at the Rio Summit that: "The American way of life is not up for negotiation." The result was that the new agreements stemming from the Johannesburg Summit placed an even stronger focus on privatization and market mechanisms as the primary vehicles through which to encourage social change.

Since it first burst onto the international stage in the 1980s, the concept of “sustainable development” has faced intense criticism. It has been accused of being all things to all people, by failing to provide a clear indication of what kinds of industrial development, if any, must be sacrificed in order to preserve the integrity of particular environments (Lohmann 1990; Redclift 1992; Stone 2003; Kottak 2004). Many have argued that, by focusing primarily on the potential of the free market to bring about change, the UN’s conception of sustainable development has failed to adequately consider the roles played by free market economics, privatization and unrestrained economic growth in contributing to poverty and environmental degradation (Lélé 1991; The Ecologist 1993; O’Connor 1994; 1996 Escobar 1996; Sneddon 2000; Castro 2004; Watts and Peet 2004). It has been called a “business as usual” approach to economic development (Sneddon 2000: 522), because it implies that a slightly modified version of the existing global economic order will be sufficient to reduce poverty and restore degraded environments and fails to seriously question the tremendous prosperity currently enjoyed by the world’s wealthiest countries, companies, and individuals (Redclift 1989; Solow 1993; Norgaard 1994).

In opposition to the sustainable development discourse, James O’Connor (1994, 1996) has argued that there is an inherent contradiction between the capitalist mode of production and efforts to preserve the health of particular environments. He calls this the “Second Contradiction of Capitalism.” O’Connor echoes Marx’s (1887) argument that capitalism contains the “seeds of its own destruction.” Whereas Marx had seen the

overexploitation of labour and the overproduction of certain goods as probable causes of this eventual collapse, however, O'Connor highlights another problem. He argues that the continual pressure to produce goods at lower prices also depends upon the overexploitation of certain natural resources or "external physical conditions." Over time, the depletion or destruction of these natural resources is likely to lead to a state of underproduction of certain commodities, as it will become impossible to satisfy consumer demands with the resources that remain. Harkening back to the Limits to Growth thesis, O'Connor's argument suggests that sustainable development is a contradiction in terms and the only sure way to protect the planet from irreparable harm is to develop radically different ways of living.

Poststructuralist critiques have focused attention on the role of sustainable development discourse in legitimating established scientific and managerial patterns of authority and marginalizing other perspectives (Hajer 1995; Luke 1995; Escobar 1996; Davis 2003; Castro 2004; Watts and Peet 2004). Hajer (1995) claims that sustainable development discourse is an illustration of what he calls "ecological modernization." He argues that, since sustainable development discourse retains an unflinching faith in the power of economic, bureaucratic, and scientific rationality to manage and control the biophysical world, it cannot be understood as a radical critique of conventional development discourse. To the contrary, the call for more environmentally sensitive forms of development may actually be used to strengthen the hegemonic power of expert knowledge. Further to this point, Escobar (1996, 1999) has argued that the

institutionalization of the sustainable development concept places an even greater emphasis on the need for experts to dictate an appropriate course of action. He claims that the idea of sustainable development is based on “the problematization of global survival” (1996: 51). The Earth is presented as a “fragile ball,” and all humans are called upon to do their parts to protect it. The responsibility of prescribing exactly what course of action must be followed in order to safeguard the health of the planet, however, remains the prerogative of First World professionals (Escobar 1999). Escobar (1996) has also observed that sustainable development discourse tends to focus solely on conserving those elements of the global environment that are “relevant to the functioning of the (urban-industrial) system” and neglects those that are not profitable (1996: 52). This “economistic” perspective portrays nature solely in terms of its instrumental value. Seen through this lens, environmental conservation is not a moral or political imperative, but a means through which to exploit resources as efficiently as possible (ibid.).

Paying particular attention to recent developments in the world’s oceans, Steinberg (1999) has noted that the rise of sustainable development discourse has done little to restrict the overexploitation of the seas. To the contrary, he argues that it has actually facilitated the opening up of ocean environments throughout the world to a host of new industries by underscoring the importance of “rational” scientific resource management in balancing multiple uses of marine space. Steinberg observes that the rise of sustainable development discourse has ushered in a new image of the ocean as a “cornucopia of exploitable, but fragile resources.” Proponents of sustainable development,

he argues, have tended to stress the importance of “long run planning” to ensure that those “economical assets” are exploited in such a way as to maximize “efficiency and productivity” (1999: 404-405). This, he suggests, has had the effect of silencing alternative voices which refuse to characterize the sea solely in economic terms. Similarly, Nichols (1999) takes the position that recent trends in ocean policy, including the promotion of sustainable development and what she calls “integrated coastal zone management” represent a fundamentally neoliberal approach in that they maintain that “economic development and conservation goals are mutually supportive under the right circumstances of regulation and resource privatization” (Nichols 1999: 389).

1.2 The Ecosystem Approach

Sustainable development discourse may indeed continue to elevate expert knowledge to a privileged position, but the idea has come into being alongside another policy discourse which appears to signal a greater willingness to acknowledge the limitations of previous approaches to resource management. While the idea of the “ecosystem approach” or “ecosystem-based management” has been applied in a number of different ways, it has almost always been juxtaposed against the “single species” or “single industry” management approaches that were characteristic of earlier periods (Fitzsimmons 1999; Yaffee 1999; Menzies and Butler 2006). As an alternative, management based on an ecosystem approach promises to focus greater attention on the behaviour of the system as a whole and on the complex interactions between elements in that system (Montuori and Purser 1996). While the ecosystem concept has a long history,

in both biology and anthropology, it is only in the last few decades that it has entered into the mainstream of environmental management, spurred on in part by its inclusion in key UN environmental policy agreements.

In his book *Imperial Ecology*, Anker (2001) locates the emergence of ecosystem management in the colonial policies of the British Empire around the turn of the twentieth century. He argues that colonial administrators “urgently needed tools for understanding human relations to nature and society in order to set administrative economic policies for landscapes, population, settlement and social control” (ibid: 2).⁹ Anker notes, however, that in these early years, there was little agreement about what direction this new science should take. The South African school of thought, which was led by scholars such as John Phillips and John William Bews, was strongly influenced by that country’s segregationist policies. They produced an ecology based on the idea that: “humans should be understood as evolving from different biotic communities” and they used this idea to naturalize and justify the existing social order (ibid: 238). The British school of thought, led by Arthur George Tansley, took a very different approach. Tansley theorized that the natural environment operated like a machine with numerous interacting parts and he stressed the importance of studying the entire system in an attempt to understand patterns in these interactions. His work, in turn, had a tremendous influence on authors such as Aldous Huxley and H.G. Wells, both of whom took this to mean that the natural world existed in a state of balance and argued that human societies should be organized in accordance with the “laws of nature” (ibid: 240). While the idea that nature is inherently stable and

ordered has a very long history in many intellectual and religious traditions, the emerging discipline of ecology provided it with heightened scientific legitimacy (Williams 1980; Scoones 1999).

The ecosystem concept had a minimal influence on resource management practices in the first half of the twentieth century, but it began to take centre stage in the 1950s and 60s (Scoones 1999). Building upon developments in mathematics and physics, growing attention began to be paid to the idea that biological systems tend toward states of relative “equilibrium” or “homeostasis” over time (McCay 1978; Kwa 1994; Scoones 1999; Lansing 2003). Similar developments took place within ecological anthropology, as works by authors such as Roy Rappaport (1968), Marvin Harris (1974), and Andrew Vayda (1976) developed theories which explained cultural systems as functional adaptations to biological systems (McCay 1978; Orlove 1980; Netting 1982; Milton 1996).¹⁰ These authors forwarded arguments about the relationship between nature and culture that emphasized structure and stability, often to the neglect of process and change (Orlove 1980; Netting 1982).¹¹ Nature was seen as having fairly predictable laws and patterns that could be understood by the natural sciences. Culture, on the other hand, was understood as a system through which human behaviour was regulated in such a way as to allow local populations to make optimal use of their surroundings, without exceeding the capacity of those surroundings to support them (Orlove 1980; Peet and Watts 1996).¹² This emphasis on the balance between human and ecological systems was also clearly

reflected in the Club of Rome's call for world leaders to work toward a state of "economic and ecological equilibrium."

Over time, faith in the stability of nature began to be undermined by the repeated failures of ecological systems to conform to the predictions of managers (Luhmann 1997; Scoones 1999; Thrift 1999; Bavington 2002; Lansing 2003; Pálsson 2006). Faced with growing criticism, many environmental management agencies began to pay greater attention to the non-linear dynamics of ecosystems which made it difficult, if not impossible, to accurately predict their behaviour (Holling and Meffe 1996). This new way of thinking, which began to crystallize in the 1970s, is founded upon "an ecology of chaotic fluctuations, disequilibria, and instability" (Peet and Watts 1996: 12). During this period, "the mathematical foundations of ecology began to shift away from the study of equilibrium (the balance of nature), using simple differential equations, to the study of nonequilibrium theory with the techniques of nonlinear analysis" (Lansing 2003: 192). In this "new ecology," ecosystems can no longer be viewed as being easily understandable, predictable, and controllable (Montuori and Purser 1996; Bavington and Kay 2007).¹³ Instead, they are increasingly portrayed as complex "open" systems, which are continually influenced by a multiplicity of forces (Martin 1994; Scoones 1999; Ingerson 2002). This is perhaps nowhere more apparent than in the case of coastal and marine ecosystems, which are exposed to a wide variety of influences and are particularly prone to sudden, unexpected shifts (de la Mare 2005).

The growing willingness to acknowledge the inherent uncertainties that are brought about by these complex dynamics has brought about sweeping changes in both science and environmental management. A new “post-normal” science is beginning to be employed in situations where knowledge is incomplete but stakes are high (Ravetz 1999). This trend has been characterized by a growing awareness of the need to consider larger temporal and spatial scales and a heightened recognition of the importance of paying close attention to the unique variables at play in particular environments (Scoones 1999). There has also been an increasing reliance on new information technologies, particularly new mapping and modeling techniques, which allow for the overlaying of multiple sources of data (Nowotny et al. 2002; Brosius 2003).

In place of the totalizing, “top-down” management models of the past, new approaches have tended to emphasize the need to incorporate the knowledge of resource users as a complement to conventional scientific modeling techniques (Neis 1992; Neis and Felt 2000; Johannes et al. 2000; Berkes et al. 2003; Murray et al. 2005; Menzies and Butler 2006; Haggan et al. 2007). There has also been a growing consensus that managers should devote more of their time and resources to trying to understand and influence the beliefs and attitudes of resource users in an effort to reduce the negative environmental impacts of human actions (Wallace et al. 1996; Mitchell 1997; Ostrom 1990; Grey 1999; Coward et al. 2000; Caddy and Cochrane 2001; Drori et al. 2003; Ommer 2007). These shifts have brought with them a heightened focus on the need to incorporate the insights of social scientists into resource management. Such fields are increasingly being viewed

as having the unique expertise needed to develop methods for incorporating “local” and “traditional” ecological knowledge into scientific models and to assist governments in brokering partnerships with non-state actors in order to develop collaborative mechanisms through which to carry out scientific research and enforce conservation regulations (Murray et al. 2005).

Many of these ideas assumed a central role in the approach to ecosystem management that emerged in the wake of the Rio Earth Summit and subsequent UN policy agreements. Principle 15 of the Rio Declaration appeared to usher in a new era of humility in the face of uncertainty, when it stressed the need for states to adopt a “Precautionary Approach” to environmental management. It defines this approach as follows: “Where there are threats of serious or irreversible damage, full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation” (United Nations 1992b). Instead, it suggests that action must sometimes be taken, even in the face of uncertainty. While the Rio Declaration and Agenda 21 went on to stress the need for “precautionary” “anticipatory” “integrated” “multi-species” and “multi-sectoral” approaches in environmental management, they did not explicitly use the terms “ecosystem approach” or “ecosystem-based management” (Turrell 2004). These phrases did not become fully institutionalized in international environmental policy discourse until 1995, when they became a central component of the Conference of the Parties of the UN Convention on Biological Diversity, which was held in Jakarta, Indonesia (ibid: 15). Those present agreed that: “the conservation and

sustainable use of biological diversity...should be addressed in a holistic manner;" and that "the present mono-species approach to modelling and assessment should be augmented by an ecosystem-process oriented approach, based on research of ecosystem processes and functions..." (ibid: 15-16). These commitments have been subsequently reaffirmed in several UN agreements, including the World Summit on Sustainable Development Implementation Plan, which was released in 2002.

While the acknowledgement of uncertainty that has accompanied the emergence of the ecosystem approach represents a departure from the hubris of previous eras, some have remained critical of the concept of ecosystem management, as it has been deployed in international policy frameworks. One major criticism of the non-equilibrium focus of the "new ecology" is that, by presuming that ecosystems are always in a state flux, the idea of ecosystem management could be used to undermine any capacity to judge whether one configuration is any healthier than any other. Some have argued that arguments drawn from this new ecology can, and often have, been used to justify a variety of new forms of resource exploitation. Budiansky summarizes this position as follows:

...the idea of a risky nature is one that is hard for many people to swallow... Environmentalists recoil at the notion precisely because it seems to give man license to transform nature at will. If what is here could just as well have been something completely different, then what is wrong with turning forests to deserts or prairies to cattle ranches or wetlands to sugarcane fields? The honest and uncomfortable answer is that from a scientific point of view, there is nothing at all wrong with these things...(Budiansky 1995: 98).

Several critics have also noted that, as much like advocates of "sustainable development," proponents of the ecosystem approach often stop short of a more radical

critique of managerial patterns of authority (Montuori and Pursor 1996; Scarce 2000; Bavington 2002; de la Mare 2005). Ingerson (2002) observes that the very notion of ecosystem *management* implies that it is possible to force “the genie of ecology back into the bottle of science” (2002: 6). It suggests that complex systems can be managed, provided that better sources of data can be incorporated into management models and more effective mechanisms of enforcement can be implemented.

Borrowing from Bruno Latour (1986, 1987), Scarce (2000) points out that, even with this new recognition of uncertainty, the ecosystem concept must be understood as an attempt to extend the engineering ideal of laboratory research to the broader world. He notes that, far from “discovering” the ways in which systems actually work, ecosystem science necessarily creates the very systems it seeks to understand. Systems, he argues, need to be understood as social constructs, since the very acts of defining their boundaries and modelling their behaviour involve highly subjective processes of selection and omission which necessarily shape the questions that are asked and the conclusions that are drawn. He, furthermore, observes that the ecosystem approach depends upon the belief that it is possible to break down complex systems into their component parts in order to study them and then reassemble that knowledge in order to gain a sense of how those parts fit together. There is no guarantee, however, that this will produce an accurate picture of how nature actually operates, much less an effective mechanism through which to anticipate and adapt to future events (ibid.)

Some have pointed out that, while the ecosystem approach acknowledges that complete control over biological systems may not be possible, it appears to shift the locus of control onto social systems (Wallace et al. 1996; Scarce 2000; Bavington 2002). In the face of chronic uncertainty, human beings have come to be constructed as the most manageable element in a vast and complex human-environment system (Bavington 2002). Several scholars have challenged the ecosystem concept for its tendency to downplay the agency of individual actors, instead portraying them as predictable cogs in a larger social-ecological machine (Sachs 1999; Anker 2001; Bavington 2005). Anker notes that the term ecosystem is derived from the Greek term *oikos*, which referred to the household, or more specifically, the “mechanistic necessities” associated with running a household (2001: 242). He draws upon Hannah Arendt (1958) who pointed out that this domestic sphere was historically distinguished from the public sphere, or the *polis*, which was associated with human freedom, creativity and engagement. Echoing Arendt, Anker claims that, by subsuming all human action to the realm of *oikos*, the ecosystem concept risks reducing most human actions to a deterministic “stimuli-response” system that appears to leave little room for ingenuity or freedom (Anker 2001: 242-243).

1.3 Civil Society

The growing focus on the importance of public participation in ecosystem management is reflective of a broader trend toward the formal involvement of “civil society” in contemporary regimes of governance. Faced with budgetary cutbacks and demands by citizens and corporations for greater input in shaping policy, many

government agencies have begun to embrace more “enabling” management approaches, which often employ techniques developed in the private sector or in international development planning (Miller and Rose 1990; Burchell 1991; Rose 1996; Shore and Wright 1997; Clarke and Newman 1997; Martin 1997; Bourdieu 1998; Dean 1999; Brown 2001; Paley 2002; Jessop 2002). This trend has also been characterized by a heightened effort to transfer duties once performed by the state onto non-state actors as a way of dispersing financial risk and political responsibility (Beck 1992; Burchell 1996; O’Malley 1996; Rose 1999; Ferguson and Gupta 2001; Harvey 2001; Henkel and Stirrat 2001; Pianta 2001; Li 2007). Public servants increasingly find themselves under pressure to relinquish the “command and control” style of previous eras and adopt more collaborative approaches, based on the “empowerment” of “stakeholders” (Rahnema 1992; Comaroff and Comaroff 1999; Cruikshank 1999; Cleaver 2001; Cooke and Kothari 2001; Francis 2001; Poncelet 2001; Darcy 2002; Singh and van Houtum 2002; Smith 2002; Mikalsen and Jentoft 2003; Nuijten 2003; Buanes et al. 2004; Hickey and Mohan 2004; McCarthy 2005; Büscher 2007; Chakravartty 2007; Gray and Hatchard 2008; Kasperson 2008). Rather than insisting on complete decision-making authority, they are increasingly concentrating on “responsibilizing” non-state actors by attempting to train and motivate them to participate actively in the development and implementation of policy (Rose 1996, 1999).

This process of downloading costs and responsibilities has, however, also been accompanied by the growth of what Strathern (2000) has called “audit cultures,” in which

state institutions continually monitor the effectiveness of non-state actors in achieving pre-identified objectives. The state continues to play a vital role in steering the agenda and assessing the degree to which performance targets are being met, but allows for greater flexibility in the ways that particular goals are achieved. By controlling the nature and extent of public participation, determining the issues that are up for discussion, and defining measures of “progress,” however, states are, at least in principle, able to retain a high degree of influence, without assuming the same degree of financial and political risk as was the case during the “welfare state” era.

Similar changes have been apparent in the internal human resource management practices that have been adopted within many state bureaucracies in recent decades. The “New Public Management” movement, which took hold in many Western government agencies during the 1980s and 1990s, was also strongly influenced by private sector management techniques. It has been characterized by several core elements, including: 1) forcing government departments to reduce their operating costs by eliminating or contracting out their “non-core” functions; 2) placing a heightened focus on motivating employees through such things as the delegation of new forms of responsibility, the establishment of programs designed to strengthen “organizational culture,” the development of flexible working hours, and the implementation of systems of individualized salaries and bonuses, which allow for employees to be easily rewarded or punished on the basis of performance; and, 3) putting a strong emphasis on the continual

training and re-skilling of employees (Deleuze 1990; Dunleavy and Hood 1994; Savoie 1995, 1999; Aucoin 1995; Shore and Wright 1997; Peters 1998; Kasemets 2000).

Examining the recent focus on “civil society” within the UN system, Jaeger (2007) argues that this trend is indicative of a broader attempt to depoliticize global governance by working to “remove issues from fundamental political contention” and encouraging individuals and groups to participate directly in the process of governing themselves (2007: 258). He further points out that this approach is not limited to UN conferences dealing with the environment, but has also been very much apparent in other UN conferences since the early 1990s, including those dealing with questions of peace, development, democratization, human rights, population, and gender equity (ibid: 259).

Jaeger and other critical scholars of these developments have built upon the pioneering work of Michel Foucault. Foucault took the position that power is not something that belongs exclusively to certain individuals and not to others. He argued that power is seldom absolute and typically emerges as an outcome or effect of particular networks of social relations (Foucault 1982). While Foucault’s early writings on power did not take the state as their primary focus, he clarified his thoughts on the nature of state power in the later years of his life in an influential series of lectures that he delivered at the College de France in 1978 and 1979 (Gordon 1991). At that time, he developed the concept of “governmentality,” which tied together his interest in examining the emergence of the modern state with his longstanding concern with exploring the ways in which subjectivity is shaped and reshaped through relations of power and knowledge

(Lemke 2000). Rather than restricting his use of the word of 'government' to descriptions of state bureaucracies, however, Foucault also invoked an earlier usage of the term which referred to any number of actions that are intended to steer or influence the conduct of others (Gordon 1991). Jaeger explains:

...“governmentality” has involved shifts from a separation between public and private forms of government (for example, in the state and the family) to continuity between them; from the concern with control over territory and law-abiding subjects to alternately disciplinary, pastoral, biopolitical and liberal concerns with the condition, welfare and management of the population; from legal regulation “from above” political subjects to material regulation “from within” the population and “through” living individuals. As a result, traditional preoccupations of sovereign power (decision-making authority, legislation, etc.) have been overlaid by concerns of (self-)discipline and surveillance on the one hand, and by concerns of political economy and “liberalism” (that is, societal and individual self-regulation) on the other (Foucault 1991; 1997 a, b; 2000 a,b, summarized in Jaeger 2007: 260).

Foucault was particularly interested in showing how it was that state power came to be “governmentalized” over time. That is to say, how state practices came to depend increasingly on administration and persuasion to achieve particular ends, instead of relying primarily on the threat of force. This echoed the earlier writings of Gramsci who also explored the relationship between the state and civil society, particularly the former’s dual reliance on both coercion and consent (through the incorporation of “civil society” into the state apparatus) in retaining hegemonic control over the populace (Gramsci 1971).

According to Foucault, governmentality, unlike more overt forms of coercion, is not necessarily repressive. Rather, it can be productive, in that its primary goal is to manage, guide, and administer life. He contended that such interventions into the lives of

citizens often appear to be guided by politically neutral, 'scientific' or 'technical' knowledge, but this characterization obscures the ways in which particular relations of power serve to uphold particular "regimes of truth" while marginalizing others (ibid.). In this way, governmentality transforms politically charged issues into "managerial problems, thereby removing them from the sphere of political decision-making and fundamental political contention" (Jaeger 2007: 260).

Elaborating upon Foucault's insights, a number of contemporary theorists have examined the particular form of governmentality that has emerged in the wake of the "neoliberal" reforms of the 1980s and 90s (Deleuze 1990; Gordon 1991; Wright 1994; Burchell 1996; Martin 1997; Dean and Hindness 1998; Rose 1999; Lemke 2000; Mouffe 2000; Harvey 2001; Brown 2003). Several of these authors have pointed out that the common perception that neoliberalism has been characterized by a retreat of government is mistaken. In actual fact, government, in the Foucauldian sense of the word, has grown stronger through recent policy reforms. Whereas welfare state era policies were characterized by larger bureaucracies and greater centralized control, neoliberal approaches have increasingly sought to bring about government from within.

Wendy Brown has argued that neoliberal governmentality typically involves "the active promotion of institutions, policies, and discourses which normatively construct individuals as calculating, entrepreneurial selves" who "rationally deliberate about alternative courses of action, make choices, and bear responsibility for the consequences of these choices" (Brown 2003: 5-6). Emily Martin has observed that neoliberal thinking

calls forward an idealized image of individuals as 'flexible,' 'self-actualizing' and 'responsible' actors (Martin 1994). In this vision of the world, agencies of the state cease to act as "providers of services" and "bearers of risks" and must instead become "facilitators" or "partners" (Hansen and Svalkoff-Iversen 2002: 15). Rather than expecting the government to ensure their security and well-being, citizens, agencies, and corporations alike are expected to assume the role of a "self-reliant, self-governing, and self-managing 'tenant'" (Shore and Wright 1997: 33). They are granted new "rights," particularly rights to own, lease or manage what had once been considered state or common property, but they must understand that in return for these new rights, they must also assume new responsibilities and new risks (Harvey 1990; Jessop 2002).

The ways in which this responsabilization process has taken shape in environmental management is the primary focus of Arun Agrawal's book *Environmentality: Technologies of Government and the Making of Subjects*. Agrawal explores the "relationship between changing technologies of government," such as "the decentralization of environmental regulation to the locality..." and the production of new "environmental identities" (2005: 6, 14). Building on Foucault, he uses the term "environmentality" to describe an emerging environmental governance approach which is characterized by a number of interrelated components. The first is the production of *governmentalized localities*, which are spaces that have been transformed into domains "fit for modern government" (ibid: 6). This is achieved through the application of diverse "strategies of knowledge and power," most notably the use of statistics and other

quantitative and technological representations of the environment which make it increasingly possible for managers to delegate responsibility while continuing to “govern at a distance” (ibid: 89).¹⁴ The second component is the creation of *regulatory communities*. These are “new regulatory spaces within localities where social interactions around the environment take form” (ibid: 6-7). Included among these are such things as integrated management boards, stakeholder roundtables, and steering committees, all of which ‘empower’ certain individuals to participate in the management process while excluding others. These new institutional arrangements, in turn, play a key role in the third component, “the constitution of *environmental subjects* – people who come to think and act in new ways in relation to the environmental domain being governed” (ibid: 7). Examining the history of forest regulation in Kumaon in Northern India, Agrawal argues that, over time, there has been a gradual dissolution of the once firm boundary between state and community, as: “...national and state governments are striving to make rural populations accomplices...in their own control” (ibid: 14).

Also building on Foucault, several critics have noted that the recent focus on the participation of civil society in environmental management carries an implicit assumption that all perspectives can be accommodated through better information exchange. As a result, there has been a tendency to underemphasize more challenging questions of power, politics and history which have given rise to the present configuration of interests (Cleaver 1999, 2001; Mikalsen and Jentoft 2001). In James Ferguson’s terms, participatory planning bodies may serve as an “anti-politics machine,” strategically

avoiding more contentious issues about access to resources and social justice and focusing primarily on procedural matters (Ferguson 1990). The stated goal of participatory management is to move beyond fruitless confrontation and make consensus-based decisions, but this implies that all positions are ultimately reconcilable, which is rarely the case in practice (McCay and Jentoft 1996; Brosius 1999, 2000; Walley 2004).

Many scholars have expressed concerns about the ways in which participatory planning processes often have the effect of granting legitimacy and political status to developers and outside investors, while excluding others from discussions altogether, particularly historically rooted local residents who depend on resources or environments in indirect and/or nonmaterial ways, but are not considered stakeholders (Nelson and Wright 1995; Guijt and Shah 1998; Wilson and McCay 1998; Walley 2002; van Sittert 2003). By presenting the environment in question as everybody's space, and sometimes granting new interests priority over historically established ones, the language of participation and community empowerment has sometimes helped to "shift resources away from local strategies for local livelihood and empowerment" and toward "resource management that serves powerful interests, corporate, military, scientific, consumer oriented, etc" (Brosius et al. 1998). Peet and Watts have taken this argument a step further and argued that participatory management is a deliberate strategy for "scaling back government controls over lands, forests, coasts, and genetic strains" by creating "a critical mediating space between state and market" (1996: 21). They have added that the form of participatory governance that has come into being alongside the discourse of

sustainable development has been characterized by “a displacement of regulatory power ‘upwards’ to unelected and only partially responsible global governance institutions” and this in turn helps to “relieve pressure on nation states and provide the thin regulatory context for the smooth operation of global capitalism” (2004: xv). Speaking specifically about ocean and coastal planning, Nichols has made the case that: “Integrated coastal management is a regulatory instrument intended to reorganize coastal spaces and political systems for the purposes of enabling investment penetration by state and international capital” (Nichols 1999: 390). This “decided bias in favor of more intensive state and international investment,” she suggests, is likely to diminish the power of resident peoples to have meaningful control over the ways in which the coastal environment is used (ibid: 389).

Others have noted that the recent incorporation of the concepts of “community” and “civil society” into policy discourse may be “precisely to have an organized counterpart with which to negotiate” and a way to “keep local disruptiveness under control” (Heyman 2004: 494), permitting “small, well-regulated doses of dissent as a way of circumscribing and constraining more substantive challenges to these projects” (Brosius 2003: 6). Castro (2004) asserts that:

...the participation process is not designed...to empower the people or to question the objectives of a project or program but instead, to explain to the people what these objectives are and to ask them for the best way of achieving these objectives. The end destination is not in question...The technical experts know the direction in which the communities are to evolve, and public participation is to steer them in that direction...” (2004: 201, 208).

Similarly, Kasperson (2006) states that:

...much of what now passes under the rubric of stakeholder involvement has more to do with assuring and legitimating the goals of sponsoring managers than introducing new perspectives and knowledge or empowering those who occupy the spectator mainstream or live on the margins of community and society (2006: 321).

While efforts to devolve certain environmental responsibilities onto civil society through participatory management institutions are relatively recent, the idea of using exclusive access rights and private property to make resource users more responsible for their actions has been debated by scholars of fisheries and ocean management for decades. Mansfield has argued convincingly that the emergence of neoliberal approaches to governance in fisheries and oceans policy in recent years must be placed “in the context of the longstanding emphasis on property and the problem of the commons” in debates about fisheries management, particularly the idea that “profit maximization is natural” and that property rights “can harness this rationality for the greater good” (2004: 314).

Economists have long argued that privatization of common pool resources like fish will eliminate the problems created by “open access” because it will give resource users a sense of ownership of the resource and, in the case of “renewable” resources, an economic incentive to conserve for future use. This view lies at the core of the “Tragedy of the Commons” thesis. First conceptualized by Scott Gordon (1954), and later named and popularized by Hardin (1968), the thesis posits that open access regimes inevitably lead to overexploitation, since human beings have an innate tendency to act in their own best interests at the expense of the greater good.¹⁵

Since the 1970s, the Tragedy of the Commons thesis has faced severe criticism from many social scientists (McCay 1978; McCay and Acheson 1987; Feeny et al. 1990; Ostrom 1990; Matthews 1993; Dyer and McGoodwin 1994; Pinkerton and Weinstein 1995; Rogers 1995; Apostle et al. 1998; Jentoft et al. 1998; Newell and Ommer 1999; McCay 2001; Acheson 2003; Guest 2003; Walley 2004; St. Martin 2006). Most have argued that “open access” and “common property” are not the same, and have accused Hardin and his followers of assuming that all human beings are self-interested actors who will only act in the interests of the ecosystem if they own it or are forced to do so through government regulations. The result is a neo-Malthusian view that fails to take into account the cultural constraints on resource use that have prevented many groups of people from overexploiting common pool resources (Ostrom 1990). Some of these critics have suggested that, as an alternative to privatization, governments should work to grant new management responsibilities to entire communities of people. This has often been accompanied by calls for the development of new institutional mechanisms, like “co-management” (Pinkerton 1989; Ostrom 1990). Many have also been critical of the tendency of fisheries economists to emphasize that there are too many fishers chasing too few fish, while failing to adequately address the dramatic differences in catching capacity of different fishing technologies (Cadigan 2001). As a result, it has been suggested that they have had a tendency to underplay the impact of destructive practices like bottom trawling in destroying fish populations and damaging marine ecosystems (House 1988: 179)

The sub-discipline of maritime anthropology, which began to take shape in the 1960s has produced a number of very detailed descriptions of the ways in which cultural institutions have shaped uses of the marine environment in a variety of different contexts (Firth 1966, Casteel and Quimby 1975; Smith 1977; Andersen 1979; Acheson 1981, 1988; McCay 1988, 2000, 2001; Pinkerton 1989; Feeny et al. 1990). One particularly influential tradition was developed by individuals working with the Institute of Social and Economic Research (ISER) at Memorial University of Newfoundland, beginning in the late 1960s. Scholars associated with ISER typically employed ethnographic methods to study the cultural norms that have shaped rural fishing practices in Newfoundland and Labrador, and elsewhere around the North Atlantic Rim, and some also examined the ways in which those norms have changed over time in response to outside influences (Firestone 1967; Chiamonte 1970; Nemec 1970; Andersen and Wadel 1972, Brox 1972; Faris 1972; Wadel 1973; McCay 1980; Zulaika 1981; Kennedy 1982).

1.4 Overview of the Remaining Chapters

Environmental management may be best understood as an attempt on the part of governing agencies to reshape the world and/or ways of living in it, in ways that facilitate the achievement of particular objectives (development, profitability, conservation, health, etc.). While the new managerial discourses discussed in this chapter have proven tremendously influential, it would be a mistake to assume that that they have taken the same forms in all places or that they have gone uncontested. Tsing (2005) has used the term “friction” to emphasize the meaningful role played by local cultural and historical

dynamics in reshaping the form taken by multilateral policy frameworks and other “aspirations for global connection” when they touch down in particular localities.¹⁶ She broadly defines friction as: “the awkward, unequal, unstable and creative qualities of interconnection across difference” (2005: 4). She is very careful, however, to point out that friction is not merely a synonym for resistance. While the particularities of the local may indeed serve to impede the effectiveness of some managerial interventions, they may also sometimes help to enable or legitimate new approaches to governing. In her words: “hegemony is made and unmade through friction” (2005: 6). Tsing’s argument underscores the importance of paying close attention to the importance of place and historical contingency in shaping the ways in which seemingly “global” discourses are received and in some cases reconfigured by particular people in particular places at particular points in time.

The remaining chapters examine recent efforts on the part of the Canadian federal government to transform ocean spaces and coastal livelihoods in eastern Newfoundland in order to make them, in Agrawal’s terms, “fit for modern government” (2005: 6). In particular, they examine how the reforms that have come into effect since the closure of the cod fishery in the early 1990s have brought about a shift away from the heavily centralized “high modernist” management approach (Scott 1998) that historically characterized the planning of ocean activities and toward a neoliberal ocean management regime, driven by exclusive access rights, complex systems science, and participatory ecosystem planning. It also focuses on ways in which this new approach has been

engaged with and, in some cases, challenged by various actors in their efforts to make claims to particular places, resources and livelihoods.

Chapter 2 outlines the methodological approach that has guided this project. It focuses particular attention on the opportunities and challenges associated with using multi-sited ethnography as a vehicle through which to investigate complex policy issues which cut across multiple localities.

Chapter 3 describes the impact that international approaches to environmental governance have had on ocean policies in Canada. It examines the historical emergence of multilateral agreements dealing with ocean policy and describes the way in which the Canadian approach has evolved in tandem with, and sometimes in opposition to, these agreements. It also explores the ongoing efforts made by federal bureaucrats to put this new vision into practice, including attempts to develop new mechanisms through which to make Canadian citizens think of themselves as members of a “maritime nation,” regardless of whether or not they live near the ocean.

Chapters 4 through 6 examine the transformations that have taken place in the Newfoundland fishery over time. Chapter 4 presents a brief history of fisheries management in Newfoundland, focusing mainly on the high modernist period between the Great Depression in the 1930s and the declaration of the cod moratorium in 1992. It discusses the ongoing efforts on the part of British and later Canadian and Newfoundland government officials to move people away from the small boat inshore fishery and encourage the development of an industrial fishery employing large offshore vessels,

Taylorist fish processing plants, and scientific stock assessments. Finally, it explores the social and ecological forces that prevented this dream of a fully modern fishery from becoming fully realized.

Chapter 5 looks at the changes that took place in the Newfoundland inshore fishery in the aftermath of the 1992 cod moratorium, examining the emergence of the lucrative snow crab fishery and the impact it has had on many rural areas. It also explores the management reforms that were made by the federal government in an effort to make the fishery more compatible with new governance approaches and the reactions of fishers to these changes.

Chapter 6 shifts the focus to the fish processing industry. It describes some of the ways in which processing companies operating in Placentia Bay and elsewhere along Newfoundland's south coast have sought to adapt in the absence of cod and other key fish species. It also looks at the consequences this restructuring process has had for fish processing workers, most of whom find themselves without meaningful representation in newly emerging ocean planning bodies.

Chapter 7 examines responses to recent policy reforms within the offshore petroleum industry. It discusses the strategies that have been employed by some individuals involved in the industry in an attempt to engage with new oceans policies and identifies their main concerns about potential negative impacts that these policies may have on their capacity to do business. It also looks at the ways in which members of the industry have incorporated UN-inspired discourses like sustainable development into

their internal operations as part of their commitment to the so-called “Corporate Social Responsibility” movement.

Chapters 8 and 9 focus on specific ocean governance projects that have been developed in two different areas of the province. Chapter 8 looks at recent efforts to develop a federal Marine Protected Area (MPA) around the fishery-dependent town of Leading Tickles on the northeast coast of Newfoundland. MPAs have become a widely promoted strategy through which to create the more community-based approach to conservation and management, in which citizens play a more prominent role. The chapter discusses the efforts of a small group of people to build local support for the initiative and the tensions that they encountered as a result of those efforts.

Chapter 9 returns the focus to Placentia Bay, on Newfoundland’s south coast. While economic activity in Placentia Bay has historically focused primarily on fishing and fish processing, in recent decades it has come to be used by a number of new industries as well. The deep-water bay remains ice-free year round and this has made it an attractive location for aquaculture, mineral processing, international shipping, and both the “upstream” and “downstream” operations of the petroleum industry.¹⁷ The chapter outlines the preliminary efforts to establish a comprehensive planning framework in the bay in an effort to coordinate the uses of shared spaces between different groups of ocean users. This includes the development of the new “Smart Bay” initiative, a technologically driven planning project, which promises to represent the future of ocean management. I argue, however, that this ambitious new approach relies on abstract conceptions of nature

and society which necessarily oversimplify the complex interactions that are taking place in the bay. The result is a managerial approach that encourages new forms of industrial development, while effectively shutting many historic ocean users out of the process altogether.

Chapter 10 concludes the dissertation by reemphasizing that new ocean planning discourses cannot be meaningfully studied outside of the local fields of power in which they operate. I return to Tsing's concept of "friction" in highlighting the varied ways in which these seemingly global discourses have been applied, negotiated, and contested by different actors in Newfoundland. I then speculate about the difficult decisions that anthropologists and other critical scholars will have to make if they are to engage meaningfully with this new management orthodoxy.

Chapter 2 Methodological Approach

Since the 1940s and 50s, anthropologists have been arguing that, since “cultures” are neither static nor self-contained, it is critically important to study the complex networks which link different people, places and things together (Steward 1950; Redfield 1953; Banton 1956, 1966; Bott 1957; Barnes 1968; Whitten and Wolfe 1973; Mitchell 1974; Sanjek 1974; Cohen 1975; Barua 1978; Wolfe 1978, Nader 1980, Burt 1980, Berkowitz 1982, Stokman et al. 1984, Roseberry 1988). Among the strongest proponents of this way of thinking were those associated with the Manchester School of social anthropology, which grew out of the work of Max Gluckman. In the early 1940s, Gluckman (1940, 1942), who was then employed at the Rhodes-Livingstone Institute, began to challenge the prevailing Malinowskian view that cultures were relatively discrete entities that only occasionally influenced each other (Frankenberg 1981). Upon moving to the University of Manchester, Gluckman and his contemporaries became interested in examining how larger social systems work to shape and influence cultural practices. They also sought to apply ethnographic methods to the study of complex, industrial societies and placed a much greater emphasis on studying social conflict than had their predecessors (ibid.). Scholars closely associated with the Manchester School, several of whom studied in sub-Saharan Africa, went on to explore a range of unconventional topics, such as: judicial processes (Gluckman 1955); local forms of political organization (Epstein 1958); trade unions (Epstein et al. 1967); and labour migration (van Velson 1961).

Some studies of factories and other social institutions in complex industrial societies were done by anthropologists in the 1940s and 50s, but this focus began to fade during the 1960s (Baritz 1960; Wright 1994). Instead, many anthropologists chose to focus on rural societies at the margins of capitalism, leaving the study of bureaucratic and corporate organizations to sociologists, economists and political scientists (Wright 1994). In the 1970s, however, some began to argue for a return to this underexplored terrain. In an influential article, Laura Nader (1972) called upon anthropologists to begin "studying up," by applying their distinct methodological tools in studying centres of power, such as corporations and government departments, instead of focusing only on less powerful groups. Nader's work helped to inspire renewed interest in the study of corporate and bureaucratic entities throughout the 1980s and 1990s (Britan and Cohen 1980; Denich 1980; Fischer and Sirianni 1984; Perrow 1986; Schwartzman 1989; Abu-Lughod 1990; Ferguson 1990; Herzfeld 1991; Merry 1992; Schwartzman 1993; Wright 1994). This period also saw the emergence of ethnographic studies that looked more sympathetically upon the struggles faced by "street level bureaucrats" in trying to carry out wide-ranging mandates on limited budgets (Lipsky 1980).

With the push toward global economic integration, the development of multi-lateral policy agreements, and the expansion of the mass media into new areas, connections between places have been intensified, and more and more ethnographers and other cultural scholars have come to accept of the idea that "local communities" cannot be studied in isolation from the extra-local dynamics that affect them. In recent decades,

many have sought to develop new conceptual approaches in an effort to make sense of these complex relationships (Strathern 1991; Latour 1993; Johnson 1994; Nash 1994; Franklin 1995; Friedman 1995; Marcus 1995; Miller 1995; Appadurai 1996; Hannerz 1996; Gupta and Ferguson 1997; Strathern 1996; Biersack 1999; Comaroff and Comaroff 1999; Carley 1999; Tsing 2000; Burawoy et al. 2000; Friedberg 2001; Riles 2001; Hayden 2003; Bestor 2004; Hornborg and Crumley 2006). This has been paralleled by similar developments in related disciplines, such as World System Theory (Wallerstein 1979) and Global Commodity Chain analysis (Gereffi and Korzeniewicz 1994) in Sociology and Actor-Network Theory in Science and Technology Studies (Callon 1986; Latour 1987, 1993; Murdoch 1995, 1997; Law 1999).

Particularly noteworthy within anthropology are the growing numbers of “multi-sited” ethnographies, which trace the movement of people, objects, discourses, or events through space and time, often focusing on the different cultural meanings that are applied to them in different social contexts. Marcus (1995, 1999) has argued convincingly that more mobile forms of ethnography are needed in order to gain a better understanding of the complex interrelationships that make up the contemporary world (Marcus 1995). This can prove extremely challenging, however, since with multi-sited research, “sites and relationships are not known beforehand” (1995: 102). Anthropologists must become adept at taking on different personas and applying a variety of different research methodologies in order to adapt to the requirements of different field settings (Marcus 1999).

In the last decade, many political anthropologists have risen to the challenge of multi-sited ethnography. New approaches for studying policies are emerging, which are capable of acknowledging both the national and transnational forces that shape their content and the webs of relations that affect their implementation in particular settings (Herzfeld 1997; Shore and Wright 1997; Strathern 2000; Harper 2000; Okongwu and Mencher 2000; Brosius 2001; Gellner and Hirsch 2001; Ferguson and Gupta 2002; Herbert-Cheshire 2003; Heyman 2004). Shore and Wright (1997) have argued that the task for anthropologists examining policy is not so much that of “studying up,” but that of “studying through,” by “analysing connections between levels and forms of social processes and action, and exploring how those processes work in different sites – local, national and global” (ibid: 14). They suggest that policy has become a “key Western institution,” which contains “implicit, and sometimes explicit, models of society” and challenge anthropologists to read policies as “cultural texts,” using their unique vantage point to examine how policies work to shape “the ways in which individuals construct themselves as subjects” (ibid: 6, 7, 10). Similarly, Ferguson has taken pains to show that, while development policies in various jurisdictions may share “important commonalities at the level of discourse, planning, and program elements,” they are not likely to produce “standardized effects” (1990: 260). Along with Akhil Gupta, he has suggested that there is an urgent need to recognize that states are not simply impersonal institutions hovering above society, but are “composed of bundles of social practices,” which are “quite local in their materiality and social situatedness” (Ferguson and Gupta 2002: 992). Building on

this idea, Heyman has pointed to the need to focus greater attention on the “interfaces” between political bureaucracies and “the populations where we work” (2004, 490).

In carrying out this project, I employed a multi-sited ethnographic approach in an effort to gain a better understanding of the ways in which transnational discourses and practices, like participatory management, the ecosystem approach, and sustainable development, have been interpreted, applied, and contested by differently positioned actors with an interest in Newfoundland’s marine environment. The task of carrying out this project has proven quite challenging, forcing me to follow rapidly changing developments, work in a diverse array of settings, and employ a wide variety of research methods. Paramount among these are: open-ended, semi-structured interviews (Bernard 1988; Weller 1998; Babbie 2007); life history interviews (Langness and Frank 1981); participant observation (Dewalt and Dewalt 1998); and text-based research. The remainder of this section describes the main approaches used to investigate each of the main topical areas addressed as part of this project.

2.1 Methodology for Investigating United Nations Environmental Policy Discourses

The discussion of multilateral approaches to environmental and ocean policy in Chapters 1 and 3 was based, primarily, upon text-based research. In addition to the existing academic literature on UN environmental agreements, the chapters also make use of a variety of primary sources, including legislation, policy documents, newspaper articles, web pages, and conference proceedings. Most of the material on the incorporation of international agreements into Canadian policy in Chapter 3 was gleaned

from existing academic and policy documents, along with a variety of web pages, reports, brochures, flyers and pamphlets produced by federal agencies. Some of these sources were brought to my attention through interviews with federal public servants or through conference papers and other public presentations, while others were simply the product of extensive library, archival, and Internet searches.¹⁸

2.2 Methodology for Investigating the Development and Implementation of Canadian Ocean Policies

The material in Chapter 3 that deals with the development and implementation of new ocean policies in Canada is derived from both text-based sources and from a series of 41 interviews carried out with both senior and junior civil servants in Ottawa (18 interviews), St. John's (17 interviews) and Halifax (6 interviews) between 2003 and 2004. For the most part, these individuals were identified through a snowball sampling technique, in which I would contact people that I knew I wanted to interview and then ask them for recommendations about who I should speak to about particular topics. In most cases, I would then call or email the person in question and arrange to set up a face-to-face interview. While the majority of those interviewed worked for Fisheries and Oceans Canada (28 interviews), I also spoke with individuals working in related departments, such as Environment Canada, Natural Resources Canada, Parks Canada, and the National Research Council who had been associated with the oceans agenda in some way (13 interviews). Most of these interviews were carried out early on in the research process, and were primarily focused on obtaining historical and contextual information to guide

my research in Newfoundland. I did, however, try to gain an understanding of the main strategies employed by these individuals in their attempts to move the oceans agenda forward and the key obstacles and challenges they had encountered along the way.

In most cases, interviews were conducted in the offices of the individuals in question. While I was pleased with the number of people who agreed to speak with me, most were quite busy, and I was sometimes limited to an hour or less. I tried to make the most of the opportunities I had by preparing extensively beforehand. In some cases, I opted for a more structured approach than I might have otherwise preferred, so that I would be able to cover a broader range of issues. Thankfully, many of those individuals who could not find much time to participate directly were able to point me toward other people or documents that could help to answer my remaining questions. I was also able to check information provided by interviewees against each other when reconstructing historical events. While in Ottawa, I also carried out 5 interviews with representatives of relevant NGOs and industry associations in an effort to gain a broader sense of the issues being debated on a national level.

In addition to these interviews, I obtained as many written sources as I could find about the early years of creating and implementing new ocean-related legislation, particularly, the *Oceans Act*. Particularly helpful were transcripts from parliamentary debates and hearings that took place in the early stages of its development. I also searched for reviews, commentaries and editorials about the new ocean agenda that had been released by opposition parties, environmental NGOs, industry associations, journalists,

and the Commissioner of Environment and Sustainable Development. Valuable source material was found in several relevant journals as well; particularly *Ocean and Coastal Management* and *Marine Policy*, which both feature high concentrations of Canadian content. I was also able to locate a variety of very helpful unpublished papers on the Internet or through the recommendations of interviewees.

Major conferences on ocean issues were also an excellent source of information. Particularly useful were the national conferences of the Ocean Management Research Network in Ottawa in 2002 and 2003, the Ocean Innovation Conference in St. John's in 2003 and the Coastal Zone Canada National Conference in St. John's in 2004. These conferences drew together a diverse group of academics, government employees, and representatives of NGOs and industry associations from across Canada, the United States, and overseas who had an interest in oceans and ocean management issues. These four meetings were particularly fascinating, because they were sandwiched between the release of Canada's Oceans Strategy in 2002, and the major commitment of funding for moving forward with Canada's Oceans Action Plan and other ocean-related projects in 2005. Accordingly, this period was characterized by tremendous uncertainty about the future. Serious questions remained about whether the new principles espoused in the *Oceans Act* would capture the attention of the Prime Minister or be swept aside once and for all. In spite of our vastly different backgrounds and political persuasions, it seemed clear that most attendees of these conferences had at least some stake in the procurement

of new money for ocean-related research and development, and many were eagerly anticipating the next federal budget.

All four of the conferences featured keynote lectures by members of a select group of people who were privy to the discussions that eventually led to the creation of Canada's Oceans Action Plan. Many had insider knowledge of the events unfolding in Ottawa and would occasionally treat the rest of us in the "oceans community" to a few juicy tidbits about what was to come. These conferences were an excellent source of information about Canada's involvement in international ocean governance, and they provided an opportunity for me to informally meet or reconnect with key people in the field. In addition to these larger and more general conferences, I was also able to attend a number of smaller, more specialized conferences and workshops in various locations across Canada. Participation in these events helped me to gain a better understanding of the varied approaches to implementing Canadian ocean policies at both the national and regional levels.

For the most part, public servants who consented to be interviewed indicated that they would prefer to not be referred to by name or by other information that would allow them to be easily identified. As a result, I have decided not to use proper names when quoting them. While I have usually indicated which government department they worked for, I have often purposefully left the specifics of their position within those agencies somewhat vague in an effort to protect their identities. These individuals, along with all others who are quoted in the thesis, have been assigned pseudonyms, although some were

informed that they may still be recognizable to some readers due to the highly visible social positions they occupy.

2.3 Methodology for Investigating the “New” Oceans Economy in St. John’s

I retained a permanent residence in St. John’s, the capital city of Newfoundland and Labrador, throughout the research process, and this enabled me to keep myself informed of the main ocean-related issues at play in the city and in the province as a whole. Between 2003 and 2004, I carried out a series of 11 interviews with representatives of the Oceans Management Branch of the regional Fisheries and Oceans Canada office in St. John’s, which is largely responsible for the development and ongoing operation of new ocean management projects in the province, including those that were being developed in Leading Tickles and Placentia Bay, which are discussed in Chapters 8 and 9 respectively. These interviews were designed to provide me with a better understanding of the projects that were underway and of the challenges they had faced in getting them off the ground. I also asked questions about the relationship between the “headquarters” office in Ottawa and the regional office in St. John’s, and about some of the most pressing ocean-related issues or problems that they foresaw in the years to come. While in St. John’s, I also spent time speaking with several provincial government employees (6 interviews), academics (5 interviews), representatives of industry associations (6 interviews), and representatives of environmental NGOs who had been involved with the process in some way, or were deemed particularly knowledgeable about

new oceans policies and their potential impact on the region by others I had spoken to (4 interviews).

The second major component of my research in St. John's dealt with the so-called "new oceans economy." This term is usually applied to: the offshore petroleum industry, the ocean technology sector, the marine biotechnology industry, and the commercial aquaculture industry, and is sometimes juxtaposed against the "old economy" of the coastal fishery. My 16 interviews with individuals working in these fields helped me to gain a better understanding of how these industries operate and assess the hopes and/or concerns they had about the new *Oceans Act*, and the move toward participatory planning more generally. I also asked questions about any relevant programs or philanthropic initiatives they had been involved in. Whenever possible, I attended conference presentations and public lectures that could educate me further about the ocean industries that were operating in the province and the issues that were of primary concern to those involved in them. Particularly helpful was the Coastal Zone Canada Conference in St. John's in 2004, which included a number of panels dealing with ocean development issues in the Newfoundland context.

While I tried to follow major developments in all ocean industries, one of my primary foci soon became the oil and gas sector. The results of this research are discussed in more detail in Chapters 7 and 9. I was fortunate enough to gain an unusually high degree of access to senior people in this industry, thanks to some research that I had done two years earlier which had brought me into direct contact with many of them. Upon

completion of my MA degree in 2000, I was hired through a partnership between Memorial University of Newfoundland in St. John's and Dalhousie University in Halifax to work as a Public Policy Intern. One of my primary duties was to prepare a detailed report on all federal and provincial legislation affecting the offshore petroleum industry in the provinces of Newfoundland and Labrador and Nova Scotia. The preparation of the report required me to conduct detailed interviews with a wide variety of individuals working in the industry and in relevant government departments. Because of this experience, I already had several good contacts in a number of different organizations when I began my doctoral thesis research. Since most companies only have small to medium sized branches in St. John's, most have only one or two senior people who are tasked with addressing policy-related issues.¹⁹ I was able to carry out interviews with 10 of these individuals, as well as with a representative of the Canadian Association of Petroleum Producers (CAPP), a national industry association that has done extensive research on the new federal oceans agenda and its potential impact on the petroleum industry. The primary themes covered in these interviews were: the historical development and ongoing operations of the petroleum industry in Newfoundland; the existing and potential impact of new oceans policies on the industry; potential conflicts with other ocean-related interest groups; and the local and international strategies used by petroleum companies to improve their public image and engage with other designated ocean "stakeholder" groups.

I made a number of additional contacts when I attended a two day seminar, entitled “Sustainable Development: Getting it Right the First Time,” that was sponsored by Memorial University’s Oil and Gas Development Partnership in 2003. The seminar brought together representatives from all of the major petroleum companies operating in the province. It featured a series of presentations on strategies for building sustainable development principles into the “organizational culture” or “hard wiring” of their companies. Many of the presentations were delivered by prominent guest speakers who had worked on “sustainable development” and “corporate social responsibility” issues internationally. These included senior policy people from the head offices of major international companies, including Shell International and Halliburton Energy Services. The workshop also included numerous breakout sessions which sought to assess the key sustainable development-related issues that faced companies operating in Newfoundland.

I also looked at a variety of organizations with a mandate to bring the oil industry together with other groups to discuss issues of mutual concern. I had several meetings with representatives of the organization One Ocean, which acts as a non-government liaison between the petroleum and fishing industries. Also, between 2003 and 2004, I regularly participated in the monthly public meetings of the Regional Advisory Committee (RAC) on Oil Spill Response, which includes representation from the oil industry and a variety of other agencies, including the Canadian Coast Guard, Environment Canada, Transport Canada, Memorial University of Newfoundland, and Ocean Net, a St. John’s-based environmental NGO. The RAC meets regularly to discuss

a variety of issues related to oil spills and oil spill response services in the province.

These included both issues associated with the local industry and “mystery spills” caused by non-Canadian vessels travelling near the south coast of the island en route to or from larger ports on the US Eastern Seaboard.

My research on the petroleum sector also drew upon a variety of published materials about the industry, including company brochures, archived newspaper articles, and documentary films that were produced by Memorial University in the late 1970s and early 1980s, when the industry was first becoming established in the province. It also makes use of presentation notes, digital media, and reports provided to me by CAPP.

2.4 Methodology for Investigating the Fishery and Other Coastal Activities in Rural Newfoundland

Another part of my research in Newfoundland focused on the transformations taking place within the fishing industry in several parts of rural Newfoundland. Most of this work is discussed in Chapters 4, 5, 6, and 8. This task was made somewhat simpler by the fact that I had already done extensive research on the recent history of the Newfoundland fishery, as part of my Master’s research project, including changes to the approach employed by the federal government in its management of the industry. I continued to keep current on these issues by reading academic publications, following a variety of different news sources, and keeping in touch with established fieldwork contacts. I was also assisted by my involvement in the Coasts Under Stress Research Project, a multidisciplinary initiative studying rural coastal communities and coastal

ecosystems on Canada's east and west coasts. This experience enabled me to speak regularly with colleagues who shared an interest in coastal communities and fishery-related issues. My close association with the Sustainability Node of the Ocean Management Research Network also introduced me to a number of key people in the ocean research community and this helped to inspire new ideas and approaches.

Research on the fishing industry was carried out in multiple locations. While in St. John's, I attended a variety of public meetings and presentations that related to the fishery. These included: meetings between Fisheries and Oceans Canada and fish harvesters to discuss the ongoing Atlantic Fisheries Policy Review process; meetings held by the Fisheries Resource Conservation Council (FRCC) about the state of the cod fishery; and several public meetings about the new *Species at Risk Act*, including two heated meetings about whether "Atlantic Cod" should be listed as an endangered species under the *Act*. These meetings exposed me to a variety of different perspectives about what form the fishery of the future should take. They also allowed me to meet, and in some cases interview, 14 fish harvesters from different areas of the province who had been active in the political process. Many of these individuals were also involved in the Fish, Food and Allied Workers Union (FFAW), although I was not able to interview a formal representative who was able to speak on behalf the union as a whole.

The remainder of the research was carried out in several different regions in eastern Newfoundland. This included various locations in Placentia Bay, particularly the "Cape Shore" area on the eastern side of the bay (9 interviews), the "Isthmus of Avalon"

area around the head of the bay (24 interviews) and the Burin Peninsula on the western side of the bay (17 interviews). Additional fieldwork was carried out in and around the Leading Ticks area of Notre Dame Bay (17 interviews) and on the Eastport Peninsula in Bonavista Bay (10 interviews). Both of these areas had *Oceans Act* Marine Protected Area (MPA) pilot projects ongoing at that time.²⁰ The Leading Ticks case is profiled in detail in Chapter Nine. I also carried out 7 interviews in Conception and Trinity Bays, where I had done previous research.

I endeavoured to speak with a wide cross section of people who were involved in some way with ocean activities or with federal ocean management programs. In particular, I focused on federal, provincial and municipal government workers, fish harvesters, fish processing plant managers and assembly line workers, regional economic development board officials, harbour authority representatives, and individuals representing other ocean-related industries or interest groups, such as aquaculture, oil refining and transshipment, and pleasure boating. I was also able to spend time visiting fish processing plants, harbour facilities, aquaculture sites, petroleum installations, and proposed MPAs. For the most part, the interviews I carried out aimed to: gather social and economic information about these regions; gain a better understanding of ocean industries operating there; examine the interactions between different groups; and explore the historical development of federal ocean management programs in the area.

While in Placentia Bay, I made a point of attending several meetings about the various planning initiatives that were being proposed for the bay. These included

presentations made by Fisheries and Oceans Canada about the development of an integrated management plan to coordinate different uses of the bay. I also attended a two day workshop in St. John's that explored a proposal to develop an "Information Seaway" project for the bay. The project was to draw together a variety of cutting edge technologies, such as ocean mapping, satellite and radar sensing, real time data transfer, and ecosystem modeling to create a "Smart Bay," designed to simplify the task of ocean management. I also interviewed representatives of the National Research Council and the Canadian Centre for Marine Communications at Memorial University about this project, as both agencies played key roles in bringing the idea forward. The results of this research are discussed in Chapter 9. My research was completed before the steering committee for the proposed integrated management plan could be fully assembled and before any formal planning meetings had taken place. Thus, some of the arguments I make and the quotations that I have included speak more to the ideas of sustainable development, the ecosystem approach and integrated management in general than they do to the particular form that it is taking in this case. Finally, Chapter 10 serves as the concluding chapter, but also includes some original fieldwork material that was taken from the first public to introduce area "stakeholders" to the planning initiatives that were taking shape in Placentia Bay.

2.5 Chapter Summary

This chapter has demonstrated that a diverse collection of methodological approaches have proven necessary in order to tackle a topic, which incorporates a number

of different spatial and temporal scales, but has also shown that these methods often introduce new challenges for anthropology. The next chapter makes use of several of these techniques in discussing the evolution of ocean policy discourses on the international stage and the way in which it came to influence the approach taken in Canada.

Chapter 3 Putting Oceans on the Map: Coastal and Marine Planning on the (Inter)National Stage

This chapter describes the ways in which the new policy discourses that emerged from the Rio Earth Summit and subsequent UN conferences have been incorporated into ongoing international negotiations seeking to determine the legal status of the oceans. It then examines how this history has influenced the new policy approach that is being developed by the Canadian federal government. Finally, it discusses the factors that have contributed to growing support for oceans programs, and explores the nationalistic imagery that has been used to persuade Canadians to think of themselves as a “maritime nation,” and build support for the new ocean governance agenda.

3.1 Oceans on the International Stage

While multilateral approaches to ocean policy were significantly transformed by the new policy discourses emerging from the United Nations Environment Program, it is important to recognize that international ocean governance is a unique field, with a long history of its own. The Rio Earth Summit was preceded by a centuries-old tradition of international diplomacy concerning the uses of the oceans, and these discussions continue to have a strong influence on contemporary approaches (Steinberg 1999).

The earliest “laws” governing the ocean came into effect under the influence of the Roman Empire. For the Romans, freedom of navigation was considered essential for the flow of commerce, and, accordingly, they chose to treat the ocean “generically as if it belonged to a separate, extra-national, legal order” (Johnston and VanderZwaag 2000:

142). The seas were referred to as *res communis*, meaning that they were the common property of all (ibid.). This status remained unchanged until 1494 when Spain and Portugal signed the Treaty of Tordesillas. The Treaty, which was ratified by the Pope, effectively divided up ownership of all of the undiscovered lands and seas to the west of the Mediterranean between the two countries (Steinberg 2001).

By the early 1600s, this movement to enclose the oceans as national property began to face opposition from Holland. The country's strength was trading rather than fishing, and its leadership saw freedom of international passage as essential in maintaining their interests overseas. The Dutch position was most famously articulated by the jurist Hugo de Groot, or Grotius, who advocated a return to the Roman system of *mare liberum*, or freedom of the seas. This view was opposed by an English jurist named Seldon, who upheld the rights of states to enclose the world's oceans and coasts as property. This sparked what came to be known as the "Battle of the Books," a debate that would continue, in a variety of forms, for centuries to come (Borgese 1983; Steinberg 2001).

Prior to the twentieth century, the world's oceans continued to be viewed primarily as the canvas upon which international commerce was played out. They were understood as a critical "space in between," which enabled the movement of people and goods and provided a source of food, but they were not seen as a potential site for new capital investment (Steinberg 1999). This changed after 1937, when the United States drilled its first offshore oil well in the Gulf of Mexico. The American government was

concerned that outside interests might one day seek to exploit the shallow gulf's rich reserves and it was decided that unilateral action was required to prevent this from happening (ibid.). In 1945, President Harry Truman signed two proclamations which extended American jurisdiction over the entire continental shelf. While Truman claimed the extension was primarily for national defence purposes, few analysts doubt that economic motives were a driving force as well (Wertenbaker 1983).

This move to enclose the oceans under national jurisdiction was soon followed by a number of other countries. Fearing that the rich fisheries off its coast were being overexploited by European vessels, the government of Argentina unilaterally extended its sovereignty to include its entire continental shelf in 1946. It was followed by the governments of Chile and Peru in 1947 and Ecuador in 1950. All four countries also declared exclusive rights to all fisheries within 200 nautical miles of their coastlines (Mandel 2003). These extensions were made official by the Santiago Declaration of 1952 (Caddy and Cochrane 2001). This move to enclose the seas persisted over the next three decades. Between 1967 and 1973 alone, eighty-one countries made claims to extend their maritime jurisdictions (Wertenbaker 1983). These actions were often met with considerable resistance from major fishing nations and sometimes led to open conflict, as was the case in the much publicized "Cod Wars" between Iceland and Britain between the late 1950s and the early 1970s (Swing 2003).

By the mid 1960s, the prospect of seabed mining was also coming to be seen as a realistic possibility, as new technologies were making it possible for mineral resources,

including manganese, iron, cobalt, copper, zinc, gold and silver, to be extracted from the ocean floor (Mandel 2003; Swing 2003; El Akkad 2006).²¹ While few of these ventures were deemed profitable at the time, secure tenure over continental shelves was viewed as essential to taking advantage of these resources in the future, and there were growing calls for a new international legal regime which would allow for the national appropriation of marine resources (Mandel 2003).

These developments gave rise to four decades of international conferences seeking to clarify the legal status of the world's oceans. The first United Nations Conference on the Law of the Sea (UNCLOS) was held in Geneva in 1958, but it ultimately failed to reach consensus. A second attempt was made in 1960, but negotiations again broke down. A compromise was finally reached on the third attempt. UNCLOS III, as it came to be known, was finally ratified in 1983. It was a product of a series of hard fought negotiations that were held in various locations between 1973 and 1982 (Wertenbaker 1983, Hage 1984).

The UNCLOS III agreement (henceforth referred to simply as UNCLOS) was conceived as a kind of "constitution of the oceans" and, accordingly was very wide ranging in scope (Johnston and VanderZwaag 2000: 142). The agreement developed mechanisms for resolving disputes between countries, formalized rules surrounding freedom of navigation, gave guaranteed access to ports for landlocked states and introduced some measures to combat marine pollution and regulate fishing (Sanger 1987, 2002; Johnston and VanderZwaag 2000; Fagan 2003). Even more significantly, however,

it defined several distinct maritime zones and specified the rights of coastal states within each of them. The *territorial sea* extends to a distance of 12 nautical miles from shore. Anything within that space is considered “internal waters.” In this zone, the state has full jurisdiction over the surface of the water, the water column, the sea bed, and the subsoil and may apply all of its relevant national legislation in these areas. The *contiguous sea* extends between 12 and 24 nautical miles from shore. In this area, the state does not have control over vessel movements on the surface of the water, but can apply its criminal, fiscal, immigration, sanitary and customary laws (Steinberg 2001). It also retains full jurisdiction over the water column and the seabed and subsoil. The *exclusive economic zone (EEZ)* extends to a distance of 200 nautical miles from shore. Within this area, the state has sole responsibility for exploiting and managing the living and non-living resources of the waters, seabed and subsoil. It also has the exclusive right to carry out marine scientific research, protect the marine environment, and apply its domestic legislation on any artificial islands, installations or structures inside the EEZ (French 1984). With this provision, most of the world’s known offshore petroleum and mineral resources and about 90 percent of the world’s fish stocks would be brought under the exclusive control of national governments (ibid.).²²

UNCLOS also developed a new legal regime for exploiting seabed and sub-sea resources beyond the EEZ. A controversial component of the agreement was “Article 76,” which provides an opportunity for the 32 countries whose continental shelves extend beyond 200 nautical miles to extend their exclusive jurisdiction beyond the exclusive

economic zone to a maximum distance of “350 miles, or a line 100 miles beyond the 2500 metre depth line” (French 1984). With this extension would come new responsibilities for resource management and environmental protection in these areas (ibid.). It would also enable these countries to develop and profit from some seabed and subsoil resources found in this area, including all petroleum and mineral resources²³ and “sedentary biological resources” on the seabed, such as fisheries for “non-migratory” fish or shellfish species.²⁴

This latter provision would also likely apply to genetic and other organic resources for use in the biotechnology, pharmaceutical, and nutraceutical industries, although the wealth to be gained from these resources was not anticipated by the original agreement. Interest and capital investment in marine biotechnology have soared in recent years, as applied researchers have begun to investigate the immense biodiversity of the ocean. There is speculation that marine biotechnology may soon offer clues about how to treat such diverse ailments as cancer, malaria and HIV (Moore 2005, Helmreich 2008). There have already been more than 15,000 products developed from marine microbes, algae and invertebrates and numerous patents have been registered (Moore 2005). It now appears that genetic and pharmaceutical resources may prove to be far more lucrative than seabed mining ever will (Reuters 2005).

Countries that ratify the UNCLOS agreement have been invited to make claims under Article 76, stating what they believe their maritime boundaries should be on the basis of their continental margins (Koring 1995). They are then given ten years after

ratification to gather data to support this claim before a decision is made. The claim process requires countries to develop a map of their continental margins, which accurately document water depths, the contours of the seafloor and the depth of the sediment beneath it.²⁵ This is an expensive and painstaking process, involving “undersea probes, small submarines and echo sounders” and “hydrophonic gear on boats going only slightly faster than a person can walk” (Stonehouse 2003).

While Article 76 promises to bring great economic returns to “wide margined states,” this windfall is not without its cost. UNCLOS declares that seabed and sub-sea resources lying outside of the EEZ are the “common heritage of mankind,” and will be subjected to a royalty sharing regime. All developments in these areas will be taxed and the wealth generated from this taxation will be redistributed to the UN’s least affluent member states (Swing 2003).²⁶

In order for the UNCLOS agreement to become active, it required the signature of 60 countries, which it received in November of 1994 (Holland and Bernal 2002).²⁷ While this ushered in a new found optimism about the prospect of increasing the pace of industrial development in the world’s oceans, this was tempered by a growing awareness that the “health” of ocean ecosystems has already been severely impacted upon by existing practices. New studies were warning of serious environmental problems that were being brought about by overfishing and pollution from ocean and land-based industries (Parfit 1995).

Once believed to be inexhaustible resources, many of the world's commercial fisheries are now in a perilous state. In 2002, the United Nations Environment Program reported that almost one third of all of the world's wild fish stocks are ranked as "depleted," "overexploited" or "recovering" (United Nations Environment Program 2002). A subsequent study by the United Nations Food and Agriculture Organization found that 78 percent of the world's fish stocks have been placed in serious jeopardy and may be unable to reproduce themselves (Goodspeed 2005). Recent evidence has shown that large predator species have been particularly hard hit (Myers and Worm 2003). This has contributed to a pattern of "fishing down the food web," as harvesters have begun to increasingly target crustaceans and other species which had previously been heavily preyed upon by cod or other larger fish species (Pauly et al. 1998; Pauly and Maclean 2003).²⁸ While this has sometimes produced short term economic gains for fishers and fish processors, as has been the case in Newfoundland and Labrador, there are some concerns that this pattern may eventually undermine the health of many of these populations as well. A controversial study published in the journal *Science* in 2006, concluded that if current trends continue unchanged, all major commercial fisheries will collapse by the year 2048 (Worm et al. 2006).

There are also a range of other human-induced problems affecting the world's oceans, including: oil pollution caused by spills and routine discharges from offshore oil platforms, barges, tankers and cruise ships; invasive marine species which are transported around the world in the ballast water of shipping vessels; contamination or "dead zones"

caused by industrial waste²⁹, fertilizers, pesticides, and untreated sewage leaching into the ocean; marine degradation caused by the absorption of air pollution; pollution from hazardous military waste left in the ocean; the disruption of species migration patterns by oil and gas pipelines and undersea cables; changes in marine ecosystems caused by global warming and associated effects (water temperature fluctuations, changes in salinity levels due to freshwater runoff from melting polar ice caps, changes in current flows, etc.); habitat destruction caused by trawling, dredging, or blasting; and sonic disturbances caused by seismic testing (Spears 2002; Summerbayes et al. 2002). These problems have raised serious questions about whether oceans are capable of withstanding the pressure of modern capitalism (Steinberg 1999).

The approach to ocean conservation developed at the Rio Earth Summit was an attempt to address many of these concerns. Although the United Nations Environment Program had established a Regional Seas Programme in 1974 through its "Oceans and Coastal Areas Program," Agenda 21 ushered in a much bolder vision (Johnston 1992). It offered a blueprint for new national and multinational ocean policies, which placed particular emphasis on the following areas:

- a. Integrated management and sustainable development of coastal areas, including exclusive economic zones;
- b. Marine environmental protection;
- c. Sustainable use and conservation of marine living resources of the high seas;
- d. Sustainable use and conservation of marine living resources under national jurisdiction;
- e. Addressing critical uncertainties for the management of the marine environment and climate change;
- f. Strengthening international, including regional, cooperation and coordination;
- g. Sustainable development of small islands (United Nations 1992a).

While numerous “coastal zone management” projects throughout the world were already placing a strong focus on user participation by this time, Agenda 21 helped to vault the concepts of “integrated management,” “participation,” “civil society,” and “stewardship” into the mainstream of global ocean policy (Van Dyke 1996; Borgese 1999). Countries that became signatories to Agenda 21 also committed to improving living standards in coastal communities, although it was not accompanied by a clear statement about how this was to be achieved (Thorne-Miller 1993; Hanson 1998).

Within five years of the conference, several countries, including Canada, the United States, Britain, Australia, New Zealand, South Africa, China, and Japan introduced new legislation or policy frameworks that institutionalized many of these ideas (Haward and VanderZwaag 1995; Juda 2003). Many other countries followed suit in the years that followed. While each country’s approach is somewhat distinct, many of these new policies bear a strong resemblance to each other, with most adopting the language of Agenda 21 and UNCLOS verbatim.

In the years that followed the Rio Summit, a number of more specific follow-up meetings were held to further discussion about various ocean-related issues. In 2001, the “Oceans and Coasts at Rio+10 Conference” was held in Paris, France to assess progress made since Rio and hold discussions on the future of global ocean management (United Nations 2001). These discussions were followed up with several sessions at the World Summit on Sustainable Development in Johannesburg in 2002. The WSSD placed a heightened focus on oceans, featuring an event dealing with “People, Oceans, and

Stewardship” and a “Civil Society Global Forum on the Ocean and Fisheries.” These meetings produced a range of new commitments, including a “Declaration on Marine and Inland Fisheries,” which vowed to curb illegal fishing and rebuild devastated stocks to sustainable levels by 2015 and an agreement to develop a global network of marine protected areas by 2012 (United Nations 2003). The WSSD also led to the formation of a new “Global Forum on Oceans, Coasts and Islands,” designed to bring together “ocean leaders from governments, intergovernmental and international organizations, non-governmental organizations, the private sector, ocean donors, and scientific institutions, to achieve the sustainable development of oceans, coasts, and islands” (United Nations Global Forum on Oceans, Coasts and Islands 2008).

3.2 Canada’s Approach to Oceans Governance

While Canadian ocean policies have been strongly influenced by the UN system, this is not simply a case of global discourses shaping a local situation. To the contrary, a number of variables that were specific to the Canadian context contributed to the way in which this new vision was articulated, both nationally and internationally. Canadian businessman Maurice Strong was a longstanding Under Secretary-General to the UN and acted as the chairperson for both the Stockholm and Rio Summits (Bernstein 2001).³⁰ Canadian delegations have, furthermore, been active participants in all major United Nations Environment Program (UNEP) summits, and the country is now a signatory to most relevant conventions relating to global environmental issues (*ibid.*). Canada has also been a key player in the development of many UN environmental agreements, including

several dealing with fisheries and oceans issues (Mitchell 1998). In addition to being a driving force behind the UNCLOS negotiations, Canada was actively involved in negotiations that led to the oceans chapter in Agenda 21, the United Nations Fisheries Agreement, the UN Biodiversity Convention, and the UN Global Program of Action for the Protection of the Marine Environment from Land-based Activities (Hanson 1998). Furthermore, the Grand Banks cod collapse has been specifically mentioned in most major UNEP reports since 1992 as evidence of the need for reform, and has been widely cited as being among the worst environmental catastrophes of the twentieth century.³¹

In the aftermath of the Rio Summit, Canada undertook a major overhaul of its policies dealing with oceans and coasts to bring them into conformity with UN concepts. In 1995, the country appointed its first ever Commissioner of the Environment and Sustainable Development to oversee the implementation of the country's international commitments, provide research and advice to departments, and work toward the development of a national sustainable development strategy (Commissioner of the Environment and Sustainable Development 2001). Later that year, the Commissioner's office produced "A Guide to Green Government" which was intended to assist federal agencies in their preparation of regular departmental "sustainable development strategies" (Government of Canada 1995).

The country has also introduced several new pieces of ocean-related legislation, policy frameworks, and strategies which draw heavily upon UN concepts. These include: the *Canadian Environmental Assessment Act* (1992), the Canadian Biodiversity Strategy

(1995), The Canadian International Development Agency's Strategy for Ocean Management and Development (1998), the *National Marine Conservation Areas Act* (2002), the *Species at Risk Act* (2002), and the National Programme of Action for the Protection of the Marine Environment from Land-Based Activities (2002). There have also been amendments made to existing statutes, such as the *Canadian Environmental Protection Act* (1999) and the *Canada Shipping Act* (2001) to bring them into conformity with UNEP principles. Although several attempts were made by the governing Liberal Party to "modernize" the *Fisheries Act* during the 1990s, these efforts met with consistent opposition from unions and other fisherpersons' organizations. Fisheries and Oceans Canada did, however, undertake an "Atlantic Fisheries Policy Review" in 2001, which outlined a new strategic direction in four key areas: conservation; economic and social viability; access and allocation; and governance (Fisheries and Oceans Canada 2001). The consequences of this new approach to fisheries management are discussed in more detail in Chapter 5.

Most significant of all was the development of a new *Oceans Act*, making Canada the first country in the world to adopt "comprehensive ocean management legislation" (Fisheries and Oceans Canada 2005). Previous attempts at an overarching ocean policy had been developed in 1973 and 1987, but both had limited impact (Vandermeulen and Cobb 2004; Chircop and Hildebrand 2005). Shortly after the Rio Summit, efforts began anew. Members of the National Advisory Board on Science and Technology's Committee on Oceans and Coasts were tasked with carrying out wide ranging consultations with a

view to eventually establishing a new and even more wide-ranging ocean policy framework. The committee consulted over a two-year period before tabling its final report "Opportunities from Our Oceans," in 1994. The report condemned the management system of the past, which resulted in the failure to better anticipate the decline of fish stocks, and concluded that Canada should work toward the development of a new *Oceans Act* based on a number of core principles, including: "sustainability," "stewardship," "wealth creation," and "risk management." It also called for a strong emphasis on science and technology in order to help Canada recapture its share of the global market for ocean-related products and services (National Advisory Board on Science and Technology 1994).

In response to this report, the newly elected Liberal government developed Bill C-98, which would create a new *Oceans Act*, and tabled it for first reading in the House of Commons on June 14th, 1995. The bill was reintroduced for second reading on September 26th, before being turned over to the All-Party Committee on Fisheries and Oceans for an extensive review. The Government also prepared a report entitled "A Vision for Ocean Management" in November of that year to better articulate the proposed approach of the government (Berkes et al. 2001).

During the all party hearings that followed, the proposed legislation faced considerable resistance from the opposition. The October 1993 federal election that had swept the Liberals to power with a 177 seat majority government also resulted in the utter decimation of the outgoing Progressive Conservative Party, which fell from 169 seats to a

mere 2. In their place, two regionally focused parties made striking gains, even though neither of them had even been in existence at the time of the previous federal election, five years earlier. The separatist Bloc Québécois won fifty-four seats, all located in the province of Quebec, and became the official opposition. The Reform Party won fifty-two seats, all to the west of the province of Manitoba and largely concentrated in the provinces of Alberta and British Columbia. While the Progressive Conservatives under then Prime Minister Brian Mulroney had been strong supporters of Agenda 21 ideals, these emerging parties had serious reservations about the new approach to ocean management that was being proposed.

Both the Bloc Québécois and the Reform Party opposed Bill-98, presenting it as a power grab by the federal government and an encroachment on provincial jurisdiction over coastal areas above the high water mark, which had been enshrined in the 1867 *Constitution Act*. There were also concerns that the bill gave too many new powers to the Minister of Fisheries and Oceans, thereby undermining the spirit of partnership that it purported to represent. Both parties also took issue with the power the bill proposed to give to the government to collect new service and licensing fees in a variety of different fields, including commercial shipping and fishing. The Reform Party claimed furthermore that the bill would simply add another layer of bureaucracy, creating new policy jobs in Ottawa, even as the department continued to cut back on fisheries officers and other field staff, making it impossible for them to adequately enforce regulations. They also

criticized the government for failing to take action on “unsustainable” fishing technologies (Standing Committee on Fisheries and Oceans 1995).

Liberals who supported the bill presented it in a very different light, arguing that, by being the first country in the world to adopt comprehensive ocean legislation, Canada would reassert its place as an international leader. The bill was aggressively promoted by the Liberal Fisheries and Oceans Minister Brian Tobin, a Newfoundland native. Tobin and other Liberal supporters stressed that an *Oceans Act* would create new efficiencies by bringing existing statutes and policy frameworks together and identifying ways of making them work more effectively. They also emphasized the role it could play in strengthening Canadian nationalism. In a spirited defense of the bill, Nova Scotia Liberal MP Roseanne Skoke argued that an *Oceans Act* would have the power to be a uniting force for all Canadians by helping them to see themselves as a maritime nation for the first time:

It makes us all working shareholders in the development of a flexible, workable and ecologically sound oceans strategy for today and for the future, one well in keeping with Canada's motto, from sea to sea...this is a vision of Canada as being much more than the Rockies, the Laurentian Shield and the Great Plains between them, of great cities lining up at our southern borders; it is also a view of myriad port cities and coastal communities, of diverse marine activities extending economic and social benefit to future generations brought to us by the rolling swells and rippled waves of blue beginnings at the edges of our land maps (Skoke 1995).

Although the bill died on the order paper in 1995, it was reintroduced in April of 1996 by Tobin's successor, Minister Fred Mifflin. Despite continued opposition, it was eventually passed on December 19th and the *Oceans Act* came into effect after the House

of Commons returned to session on January 31, 1997. The *Act* was very wide ranging in scope, consisting of a preamble and three distinct parts. The preamble outlines several reasons for the development of the *Act*: to recognize that oceans are the common heritage of all Canadians; to reaffirm Canada's role as a world leader; to affirm Canada's sovereign rights over various maritime zones; to foster an understanding of oceans, ocean processes, ocean resources and marine ecosystems; to foster the sustainable development of the oceans and their resources; to promote the wide application of the precautionary approach; to pursue opportunities for economic diversification and wealth generation; to promote integrated management; and to encourage the development and implementation of a national strategy for the management of estuarine, coastal and marine ecosystems (Fisheries and Oceans Canada 1996).

Part One of the *Oceans Act*, "Canada's Maritime Zones," laid the foundation for the eventual ratification of UNCLOS. It clearly defined each of Canada's maritime zones: "the territorial sea," "the contiguous zone," "the exclusive economic zone" and "the continental shelf",³² and clarified the jurisdictional responsibilities of the federal and provincial levels of government in each zone (ibid.). The federal government has subsequently announced its intention to make a claim to those areas of its continental shelf which extend into international waters (Government of Canada 2006a).

Part Two of the *Oceans Act*, "Oceans Management Strategy," calls upon the Minister of Fisheries and Oceans to "lead and facilitate" the development of a new ocean management strategy for Canada that is based on the principles of "sustainable

development,” “integrated management,” and the “precautionary approach.” It also orders the Minister to “lead and facilitate the development and implementation of plans for the integrated management of all activities in or affecting estuaries, coastal waters and marine waters that form part of Canada...” and to “cooperate with other ministers, boards and agencies” of the federal government, as well as with “provincial and territorial governments,” “affected aboriginal organizations,” “coastal communities,” and other “persons and bodies” in bringing these plans to life. Part Two also grants the Minister the power to establish and regulate Marine Protected Areas (MPAs) to protect “commercial and non-commercial fishery resources,” “marine mammals,” “endangered or threatened species and their habitats,” “unique habitats,” “areas of high biological diversity or biological productivity,” or any other area in marine area deemed to be in need of special protection (ibid.).

Part Three of the *Oceans Act*, “Powers, Duties and Functions of the Minister,” transfers authority over the Canadian Coast Guard to Fisheries and Oceans Canada and grants the Minister responsibility for encouraging “activities necessary to foster understanding, management and sustainable development...” It also emphasizes the importance of delivering services in a “cost effective manner” and, to this end, it gives the Minister the authority to enter into partnerships and charge service fees in order to compensate for any “reasonable outlays” incurred while carrying out “regulatory processes or approvals.” Finally, it gives the authority to make regulations under the Act for: a) prescribing marine environmental quality requirements and standards; b)

regulating the powers and duties of enforcement officers; and c) implementing provisions of agreements made under the Act (ibid.).

Canada's Oceans Strategy (COS), which builds directly upon the *Oceans Act*, was released in 2002, just prior to the World Summit on Sustainable Development (WSSD). The Strategy reaffirms Canada's commitment to the principles of sustainable development, integrated management and the precautionary approach. It also identifies a variety of broad, overarching objectives for Canadian policy: understanding and protecting the marine environment; supporting sustainable economic opportunities; providing international leadership; and adopting modern ocean governance. Finally, the Strategy commits to a number of new UNEP inspired ideals, which are to be incorporated into this new governance approach, including: the integration of science with local and traditional knowledge in decision-making; the application of ecosystem-based management; and the fostering of stewardship and public awareness among Canadians (Fisheries and Oceans Canada 2002a).

The Strategy articulates a vast new mandate for Fisheries and Oceans Canada. It points out that the agency's role in ocean governance must now extend beyond fisheries management to accommodate the other economic activities that are gaining significance in the waters of Canada. Some of the activities that are specified include: "oil and gas exploration and development, marine recreation and tourism, aquaculture, shipping and transportation, high technology instrument development, pharmaceuticals, potential seabed mining opportunities, marine navigation and communications, defence production,

and scientific and technical research” (ibid: 8). It further emphasizes that ocean conservation and development are not merely the responsibilities of government. Rather, all groups “have a duty and a shared responsibility for supporting the sustainable development of marine resources” (ibid.).

Accompanying the Strategy was a more operational document, called the Policy and Operational Framework for Integrated Management of Estuarine, Coastal and Marine Environments in Canada (POF), which laid out a broad framework for making integrated ocean management a reality. It called for a network of Large Ocean Management Areas (LOMAs) which would eventually include all of Canada’s marine, coastal and estuarine waters. Nested within each LOMA would be smaller Coastal Management Areas (CMAs) and Marine Protected Areas (MPAs), which would have their own steering committees, but would be in contact with relevant LOMA committees, as the situation required (Fisheries and Oceans Canada 2002b).

3.3 Implementing the Oceans Agenda

While the passing of the *Oceans Act* was hailed as a victory for those who had supported the bill, enthusiasm was tempered by the fact that the new legislation was not accompanied by any new federal funding. Prime Minister Jean Chretien’s Liberal Party had run on a platform of fiscal responsibility, and promptly undertook a major program review after taking office. This was followed by sweeping cutbacks across a range of fields throughout the 1990s, including social welfare, the military, post-secondary education and environmental programs. In this climate of fiscal restructuring, promoters

of the *Oceans Act* had decided not to ask for any implementation money for fear that the bill would not pass if they did.

This climate of fiscal restraint put the Minister of Fisheries and Oceans in a difficult predicament. He was legislatively bound to “lead and facilitate” the development of a sweeping new policy framework and doing so would directly affect the operations of numerous other federal and provincial departments as well as all ocean-related industries and coastal communities. This already challenging task was made far more difficult by the fact that the Department had no new financial resources through which to realize this vision. While the *Oceans Act* itself places a strong emphasis on delivering programs through “partnerships,” the absence of any seed funding imposed serious constraints on what could be done. To make matters worse, just as the *Oceans Act* was coming into being in 1996, Fisheries and Oceans Canada was itself going through a major restructuring and downsizing process. A short time before the passing of the *Act*, it was announced that the organization’s annual operating budget would be cut from approximately \$750 million dollars to about \$350 million over three to four fiscal years, leading to a “3000 person reduction in total manpower within the department” (Tobin 1995: 16-17). The challenges presented by these cutbacks, and the eventual responses to them, were well summarized in a scientific strategic plan for the Department called *Setting the Course for the New Millennium*, that was released in 2000. The document states:

Canada's international reputation in fisheries research, hydrography, oceanography and aquatic environmental science has been second to none. In some areas, these strengths have begun to be eroded through a combination of budget cuts, retirements and hiring freezes (Fisheries and Oceans Canada 2000: 8)...The Department cannot count on more and more financial resources to solve problems. It must take steps to change the way it does business and restore financial stability (ibid: 4). We will focus on the tasks we 'must do' and expend fewer resources on discretionary tasks (ibid: 8)...For the past two years, the Department has been engaged in a profound re-examination of its culture, values and governance (ibid: 1)...The nature of governance is shifting as the federal government moves toward a more collaborative and inclusive model based on shared stewardship and responsibility...Partnering with the private sector, other levels of government, and universities has become a major priority..." (ibid: 2)...staff will be proactive in identifying and adapting to emerging issues, adept at embracing partnerships, open to new ways of working, such as multidisciplinary teams, and recognized for being flexible and open to sharing information and communicating results widely through a variety of mechanisms and technologies. (ibid: 10)...We will share uncertainties with our clients as we jointly set priorities and share responsibility for our decisions (ibid: 10).

This statement clearly indicates the desire of the department to devolve new responsibilities and risks onto ocean users in order to cope with its increasingly precarious financial situation and with the inherent uncertainties of attempting to manage the marine environment.

In spite of sweeping cuts across the department, the oceans agenda was allocated some money through internal redistributions (Chircop and Hildebrand 2005). One interviewee at Fisheries and Oceans Canada estimated that between 1997 and 2003, the agency invested about \$60 million to implement the *Oceans Act*. Another said that, in recent years, the budget allocated for *Oceans Act* implementation had tended to be between \$12 and \$15 million per year, which, while not insignificant, represented less

than one half of one percent of the agency's total operating budget. A manager in one of the agency's regional offices commented that, since the *Oceans Act* had not been allocated any new federal money, it did not have any business lines reserved for it within the departmental budget. This meant that any funding that was transferred to oceans programs had to be justified by showing that it was also satisfying other departmental commitments for which funding had been allocated. This, in turn, created some internal tensions within the department.

In spite of these constraints, the first official *Oceans Act* pilot projects were launched in September of 1998, as two sites on the country's west coast were formally designated as "Areas of Interest (AOI)" for Marine Protected Areas (MPA).³³ By December of that year, a third AOI was announced on the east coast to protect the Sable Gully, a biologically rich deepwater canyon, about 200 km off the south coast of Nova Scotia. In the three years that followed, eight additional AOIs were announced, including three small coastal projects in the province of Newfoundland and Labrador. In 2003, the Minister of Fisheries and Oceans designated Endeavour Hot Vents, 250 kilometres off the British Columbia coast, as the first official MPA. This was followed up in 2004, when the Sable Gully also received formal designation and in 2005 when sites in Gilbert Bay, Labrador and on Newfoundland's Eastport Peninsula were officially recognized as MPAs as well.

The Sable Gully MPA was unique, because it was nested within a pilot Large Ocean Management Area (LOMA) integrated management project that was to cover the

entire eastern half of the Scotian Shelf that was announced at the same time. The project later came to be known as Eastern Scotian Shelf Integrated Management (ESSIM) project (Rutherford et al. 2002). Following this lead, pilot integrated management plans were also developed for a number of sites in other parts of Canada, including: the Central Coast of British Columbia, the Western Arctic, the Gulf of St. Lawrence, and Placentia Bay in Newfoundland. The Placentia Bay project is profiled in Chapter 9.

In spite of these achievements, the implementation of the new oceans vision moved very slowly during this period. Although two Memoranda to Cabinet were put forward after the release of the *Oceans Act*, neither was successful in obtaining new federal funding. With little money available, the oceans agenda moved at a painfully slow pace for many of those involved. While MPA and integrated management projects continued to be encouraged, most remained relatively small in scope, and very few MPAs received official designation, even though many had been formal Areas of Interest since as early as 1998.

3.4 The Dawning of a New Era

In the two years that followed my initial fieldwork trip to Ottawa, the political landscape shifted considerably. This trend culminated in the major allotment of new federal funding for the first phase of Canada's Oceans Action Plan and several related ocean initiatives in the 2005 federal budget. This included new investments to: map Canada's continental shelf as part of its anticipated claim under Article 76 of UNCLOS; improve fisheries conservation in the Northwest Atlantic; buy and operate new research

and enforcement vessels; prevent exotic animal diseases affecting commercial fish species; enhance Atlantic Salmon stocks; and strengthen the Great Lakes Action Plan (Harrison 2005).

The Oceans Action Plan itself is based upon four “pillars.” The first is *international leadership, sovereignty, and security*, which includes actions to: a) “enhance maritime security” as part of the National Security Policy; b) crack down on overfishing beyond Canada’s EEZ, by increasing “vessel inspections” and “diplomatic interventions;” c) “delimit the outer limits of the continental shelf” and confirm Canada’s “sovereign rights;” d) improve “bilateral and trilateral actions” with the United States and Mexico as part of the new “Security and Prosperity Partnership of North America;” e) continue working with the United States to improve ocean management in the Gulf of Maine; and continue Canada’s commitment to multilateral efforts under the “Arctic Marine Strategic Plan.” The second pillar is *integrated ocean management and sustainable development*, which includes actions to “grow” the ocean economy by developing new economic opportunities in a range of different sectors. The third pillar is *health of the oceans*, which articulates a commitment to: “stronger ecosystem-based science,” “modern technology to support oceans understanding and awareness,” and “integrated planning” based on “shared ecosystem objectives,” “effective regulatory measures,” and “protection measures.” The final pillar, *oceans science and technology*, calls upon the government to support Canadian ocean technology firms by providing “a supportive environment for the development and commercialization of ocean

technology,” and using this technology to generate “business and commercial opportunities” both within Canada and abroad (Fisheries and Oceans Canada 2005).

Much like its predecessors, the OAP also commits to “modernize ocean management,” by adopting “new oceans governance arrangements” and “smart regulation,” which will facilitate the transfer of greater responsibilities onto ocean users (ibid.). Over the first two years, it will fund a variety of new and pre-existing projects in Canada’s three oceans, all of which will relate back to the four pillars. Many of these projects will be located within one of the five “priority areas,” identified by the Plan: Placentia Bay and the Grand Banks (off Newfoundland); The Scotian Shelf (off Nova Scotia); the Gulf of St. Lawrence (between Quebec, New Brunswick, Prince Edward Island, Nova Scotia, and Newfoundland and Labrador); the Beaufort Sea (in the Northwest Arctic); and the Pacific North Coast (off British Columbia). The OAP will also support the creation of a Federal Marine Protected Areas Strategy, designed to honour Canada’s international commitment to participate in the development of a global network of marine protected areas (ibid.).³⁴

While definitive statements about the reasons for this sudden embracing of oceans as a national priority are well beyond the scope of this dissertation, some contributing forces can be identified. These include: the emergence of more “neutral” leadership; a heightened emphasis on maritime sovereignty and security issues; and a revived interest in commercialization opportunities associated with new maritime technologies. Together,

these developments transformed and, arguably, strengthened the nationalist discourse that evolved in tandem with the oceans agenda.

3.4.1 The Emergence of New Leadership

One of the primary reasons for the relative success of the Oceans Action Plan may have been that it was not driven exclusively by Fisheries and Oceans Canada. Rather, one of the major agents of change was Dr. Peter Harrison, a former FOC Deputy Minister who had relocated to the National Research Council in 2002. Several interviewees noted that, from this position, he was able to liaise with other federal departments more effectively without being encumbered by the “baggage” that continued to hamper those working under the FOC banner. This helped to minimize animosity and competitiveness between departments. Harrison’s efforts were widely credited with being instrumental to the reconvening of a senior level Deputy Ministers’ Interdepartmental Committee on Oceans in 2003, after years of dormancy, and this group in turn played a critical role in the development of the new Oceans Action Plan.

3.4.2 National Sovereignty Concerns

Although Canada was heavily involved in spearheading the Law of the Sea talks, the country did not formally ratify the UNCLOS agreement until 2003 (Sanger 2002). In explaining this hesitation, Huebert (1996-7) cites the election of a Progressive Conservative government in 1984. Newly elected Prime Minister Brian Mulroney favoured closer relations with the United States, and was unwilling to jeopardize this goal by becoming party to a convention which was steadfastly opposed by Canada’s powerful

neighbour to the south (ibid.). Furthermore, there was dampening enthusiasm about the prospect of seabed mining in the near future, which meant that the upside of ratification appeared to be minimal (ibid: 12).

Although the Liberal Party returned to power in 1993 with a promise to ratify UNCLOS, they waited for a full decade before following through on this commitment. A variety of reasons have been proposed for this delay (ibid.). For one thing, the collapse of the cod fishery in 1992 placed a large demand on government resources, and this helped to move concerns about ratifying UNCLOS to the back burner (ibid: 14). There was also a growing belief that the agreement did not adequately address several of the country's key strategic concerns. The main issue was that the extended offshore claims permitted by UNCLOS applied only to stationary seabed and sub-sea resources, and did not include fish (Koring 1995). Canadian officials feared that ratification of the UNCLOS agreement would undermine their capacity to act unilaterally to stop European Union countries from fishing at unsustainable levels on the ecologically sensitive "nose" and "tail" of the Grand Banks and on the Flemish Cap, all of which lie immediately outside of Canada's 200 mile EEZ. These areas are believed to be critical spawning areas for many species, including cod. While Canada campaigned for extended jurisdiction over fish resources on its continental shelf, these efforts were ultimately unsuccessful (Fagan 2003). Canadian concerns did, however, lead to a 1993 UN conference dealing with "straddling" (or trans-boundary) and "highly migratory" fish stocks in New York.

A year later, Canada sought to unilaterally grant itself authority over the entire continental shelf under its *Coastal Fisheries Protection Act*. A 1994 amendment to that statute gave Canada's government the authority to stop, search and, in some cases, arrest vessels suspected of fishing illegally beyond the 200 mile limit, if it deemed the health of fish stocks to be at risk (Stonehouse 2003). Although this amendment was not recognized by international bodies, Canada wasted little time in acting on these new powers. The new federal Fisheries and Oceans Minister, Brian Tobin made international headlines in 1995, when he ordered the arrest and seizure of the Estai, a Spanish trawler that had been fishing on the Grand Banks, just outside of Canada's EEZ. The boat was taken into custody in St. John's where it was charged with illegally fishing for turbot (Day 1995; Chase 2003).

Tobin's "Turbot War" theatrics played very well in the Canadian media, earning him the nicknames "Captain Canada" and "The Tobinator" (Tobin and Reynolds 2002). The Minister's actions galvanized the longstanding conviction of many in Newfoundland that heavy pressure from foreign fleets in the spawning areas was largely responsible for the collapse of the cod fishery. While these are widely believed to be very legitimate concerns, it should be noted that rhetoric about the need to "get tough" on "the foreigners" has also frequently been used to draw attention away from the damage caused by Canadian policies and practices.

As popular as they were in eastern Canada, Tobin's antics raised the ire of many people in rival fishing nations who characterized them as an unacceptable violation of

international law. Owners of the Spanish vessel launched a civil action against the government of Canada in 1996, but the International Court of Justice decided not to hear the case (Chase 2003). In spite of these lingering hostilities, the “Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks,” or simply “the United Nations Fishing Agreement” (UNFA), came into effect in 2001 (Hanson 1998). The agreement includes provisions for coastal states to manage, as opposed to enclose or own, straddling stocks which migrate across the 200 nautical mile limit (Koring 1995, Stonehouse 2003). Canada was among the first countries to sign the agreement when it was drafted in 1995 (Rayfuse 2003). The European Union, whose member states were among the primary harvesters on the nose and tail of the Grand Banks, did not sign the agreement at this time, however, and Canada refused to formally ratify the UNCLOS agreement until they agreed to do so (Fagan 2003).

Canada’s failure to ratify UNCLOS had left the country ill equipped to defend against mounting challenges to its maritime sovereignty, and this was beginning to raise serious concerns (Huebert 2003). Perceived threats that have surfaced in recent years include: disputes with Russia over seabed jurisdiction in the Pacific; disputes with Denmark over the ownership of two small islands in the northeast Arctic and over the maritime boundary north of Greenland; and disputes with the United States over the maritime boundaries between the two countries, both in the Gulf of Maine on the east

coast and in the Beaufort Sea in the Northwest Arctic, an area thought to contain considerable petroleum resources (ibid.). There were also growing concerns, which were later substantiated, that the United States would push to have the Northwest Passage declared an International Strait, rather than part of the internal waters of Canada. Warming temperatures in the Arctic have fed speculation that the Passage may one day become more easily traversable, and could become a major international shipping corridor (Calamai 2005).

These developments, combined with long simmering concerns about a range of other cross-boundary issues, such as Arctic environmental management, oiled seabirds off Canada's Atlantic Coast, and the potential riches to be gained by extending jurisdiction over the continental shelf helped to create a more receptive climate for ratifying UNCLOS in Ottawa (Hage 2003). With ratification, Canada could improve its capacity to address many of these issues. Some advocates argued that it would also likely give Canada a greater say in interpreting the ways in which various components of the UNCLOS agreement would be interpreted and applied in practice and in shaping any new regulatory regimes that may be developed in the future, to manage such things as biotechnology resources (Johnston 2003).

The eventual decision of the European Union to ratify the United Nations Fisheries Agreement in 2003 paved the way for Canada to ratify UNCLOS, which it did on November 6th of that year, making it the 144th country to ratify the agreement ³⁵ (Department of Foreign Affairs and International Trade 2003). The Canadian government

now has until 2013 to make a claim to extend jurisdiction over its continental margin.³⁶ Preliminary estimates suggest that if successful, Canada could gain jurisdiction over an area of about 1.76 million square kilometres.³⁷ That is approximately the size of the provinces of Alberta, Saskatchewan, and Manitoba combined (Harrison 2004). The newly claimed territory would be divided between the Grand Banks (about 1 million square kilometres) and the Western Arctic (about 0.75 million square kilometres) (Chircop and Marchand 2000: 4).³⁸ These areas may very well contain significant finds of offshore oil, natural gas, gas hydrates, seabed minerals, and/or genetic and pharmaceutical resources (Chircop and Marchand 2000; Swing 2003; Harrison 2004).³⁹ In anticipation of the ratification of UNCLOS, the Canada-Newfoundland Offshore Petroleum Board has already issued several oil “exploration licences” and has even issued a “significant discovery licence” on the Flemish Cap, which lies beyond the EEZ off Newfoundland (ibid.). This push toward the ratification of UNCLOS appears to have been a major springboard for the development and eventual funding of Phase I of “Canada’s Oceans Action Plan” (OAP) (Fisheries and Oceans Canada 2005).

3.4.3 The Security Agenda

Another probable factor contributing to the Canadian government’s heightened commitment to funding new ocean planning initiatives was the heightened interest in maritime security in the aftermath of the September 11th, 2001 terrorist attacks in the United States. As part of its larger commitment to national security, the US government has adopted what it calls the Deliberation and Security Initiative to bring a heightened

level of surveillance to vessels traveling on the high seas (Hage 2003). One interviewee noted that the area around the east coast of Newfoundland constitutes the one weak link in the American-led “security shield” surveillance system, which has a presence from Labrador northward and from Maine southward, and Canada may face greater pressure to help rectify this deficiency in the near future. In 2005, Canada, the United States and Mexico formed the Security and Prosperity Partnership of North America, which committed the three countries to develop complementary strategies for “oceans stewardship” “maritime transportation” and “port security” (Security and Prosperity Partnership of North America 2005). The United States passed its own *Oceans Act* in 2000, and many expected that there would be ongoing efforts to bring the three nations’ approaches into greater harmony with each other. It is possible that the heightened security agenda, and the associated pressure to integrate policies with the US and Mexico, may have also been a factor in stimulating greater interest in maritime issues among senior Canadian policy makers.

3.4.4 The Commercialization of Maritime Technologies

An additional factor that appears to have contributed to growing federal support for ocean planning has been a growing interest in stimulating the development of new maritime technologies. In parallel with the extended jurisdictions brought about by UNCLOS, many countries have made major investments in producing new technologies to simplify resource development and environmental management practices. In some countries, the development and testing of new maritime technologies has been achieved

through public-private partnerships. In others, it has been contracted out almost exclusively to the private sector (Johnston 2003). These strategies have sometimes proven quite profitable, as companies have been able to successfully market new products and services internationally.

The desire to help Canada play a greater role in the development, commercialization and export of new ocean-related technologies was at the heart of the Marine and Ocean Industry Technology Roadmap project, which released its “special report” to the public in 2003 (Government of Canada 2003). The Roadmap project was the key component of the National Research Council’s reemerging oceans focus, although it was also financially supported by a variety of other federal agencies, including: Industry Canada, Fisheries and Oceans Canada, National Resources Canada, Transport Canada, the Department of National Defence, Environment Canada, and the Canadian Space Agency (Harrison 2004). It was the product of a series of consultation sessions with a wide range of companies operating in different parts of Canada. On the basis of the information obtained from these workshops, the Roadmap report identified likely trends and technology needs in a variety of ocean industries, and sought to gain a better understanding of ways that the government could help Canadian companies to exploit untapped niches (ibid.). This focus on partnerships with the private sector and commercialization has remained a central component of Canada’s Oceans Action Plan, which has identified Placentia Bay as the site for a new Ocean Technology

Demonstration Platform, in which these new technologies can be developed, tested, and put to work in ocean planning.

3.5 *A Mari usque ad Mare*: A National Vision

Efforts to use maritime imagery to bolster Canadian nationalism have a long history, as evidenced by the country's longstanding motto *A Mari usque ad Mare* (from sea to sea). A clearly nationalist discourse surrounding ocean policy has been present since at least the mid 1990s, as part of the initial efforts to promote the idea of a Canadian *Oceans Act*. Proponents of the *Oceans Act* have long stressed the need to convince more Canadians of the importance of oceans to their country in order to create new kinds of subjects who see it as their civic duty to support ocean-related projects. The locus of political and economic power in Canada has always resided primarily in the provinces of Ontario and Quebec. While both provinces have small maritime borders in more remote areas to the north and both have major cities that are connected to the Atlantic Ocean via the Great Lakes/St. Lawrence River system, many residents of these provinces have few if any direct experiences with Canada's oceans. Thus, a major component of Canadian ocean policy has consisted of attempts to market the importance of the country's oceans to people who know little about them. As one interviewee told me, most published brochures have sought to appeal to what he termed an "Ontario's eye view" of oceans. This has often meant repeating a variety of key catch phrases designed to capture the attention of a largely disinterested public. Among the most commonly articulated statements were: "Canada has the longest coastline in the world;" "We live on a 'blue

planet' which would be better named Planet Ocean than Planet Earth;" "Canada stretches from sea to sea to sea;" and "We know more about the moon's backside than we do about the ocean's bottom." Canada's Oceans Action Plan continues this tradition, with its attempt to draw the attention of the reader to the unparalleled beauty and mystery of the briny deep beyond:

...few Canadians have seen our sub-sea valleys, plains and mountains... Some of our country's most magnificent vistas are found where the land joins the sea – coastal fjords and inlets, bays and estuaries, arctic ice fields, and archipelagos made up of thousands of islands and countless beaches...marine wildlife, plants, animals, forests of thousand year old corals, and glass sponge reefs... (Fisheries and Oceans 2005)

These efforts to vividly describe places most Canadians can never or will never see suggest that promotion of the idea of Canada as a "maritime nation" is very much an effort to create an "imagined community" where none had existed before (Anderson 1991).

The growing emphasis on sovereignty and security concerns and the heightened focus on locating new opportunities for the further commercialization of the ocean in recent years have, however, contributed to the development of a somewhat different conception of nation-building than had been the case in previous years. Evidence of this shift was very much apparent at a variety of ocean-related conferences that I attended in 2003 and 2004. The key component of this new approach is the idea that oceans should be viewed primarily as an investment opportunity rather than as a liability. Several plenary speakers at these conferences stressed the importance of convincing "ordinary

Canadians,” the federal government and private industry, that money spent on oceans would not be wasted. Rather, it would help to “maximize” the revenue generating potential of the country and improve the health of marine ecosystems, and together, these would yield tangible long-term benefits, both financial and otherwise.

This sentiment was reinforced in a number of interviews with senior public servants. Some juxtaposed this new, more optimistic portrayal of oceans against the common perception that money spent on ocean-related issues, particularly the support of beleaguered coastal communities, goes into a “bottomless pit” and only begets requests for more money. This perception was partly the result of the decision of the federal government to provide several billions of dollars in income support and training opportunities to rural, coastal areas during the 1980s and 90s, to offset the economic impact of fisheries declines. Rather than clinging to the “old economy” of coastal fisheries, this emerging discourse points to the need to encourage “innovation” by supporting the “new economy” of offshore resource development, aquaculture, ecotourism, and high-end technology. Doing so, it is suggested, would help to “re-brand” oceans and produce “win-win” solutions. Instead of always being portrayed as a “bad news story” or “basket case,” characterized by depleted fisheries, oil spills and government handouts, oceans would come to be seen as a “good news story,” characterized by vibrant economic growth, marine conservation programs, and widespread public participation. The “reactive” and “crisis management” approaches of

the past would be replaced by a “proactive” approach that uses integrated planning to anticipate problems before they emerge and transforms them into economic opportunities.

A second element of this newly emerging discourse was a new twist on the old idea of ocean governance as nation building. Increasingly, the term “nation building” is being used as a double entendre. In addition to the pre-existing focus on the emotional or “spiritual” dimensions of nation building, new perspectives have stressed that by ratifying UNCLOS, Canada has given itself an opportunity to nation build in a physical sense as well. A former Fisheries and Oceans Canada ocean policy manager that I interviewed in 2003 explained:

...oceans are a good news story in the sense that this is such a good opportunity for Canada on so many different levels. If only it could be seen as such. If people could just believe in it and take it forward and sell it as such and say, ‘My God, we’re nation building!’ Instead of building railways across the country, we’re building this incredible virtual governance network. Also, it’s an intellectual network in some ways of people who are actually taking care of what is ours as a nation. And we are also nation building literally in terms of UNCLOS and the extension of the 200 mile limit and taking jurisdiction over the continental shelf.

By investing both financially and emotionally in oceans, it was argued, Canadians could reassert sovereignty over their maritime waters, gain access to previously untapped natural resources, forge new funding partnerships with the private sector, promote a healthy ocean technology sector, and protect the marine environment all at the same time.

Whether this persuasive new discourse was what was ultimately successful in convincing high ranking federal officials to support the oceans agenda is not clear. What seems quite evident, however, is that this new emphasis on inspiring maritime

nationalism has been widely embraced by many people in the oceans field, and is likely to form the core of future attempts to promote the importance of caring about oceans to Canadians.

3.6 Chapter Summary

This chapter has shown that the *Oceans Act* took shape at the height of the neoliberal reforms of the 1990s. Sweeping budget cuts along with a growing commitment to a new environmental management orthodoxy necessitated a reconceptualization of the roles played by both state and citizenry in the regulation of ocean activities. Faced with diminishing resources, Fisheries and Oceans Canada was increasingly forced to rely on a diverse array of partnerships with other government and non-government agencies in order to carry out its new mandate. This fit seamlessly into the broader UN sustainable development tradition, in which the state is expected to assume more of an overseeing role and share more responsibilities with the private sector.

Still, it was only with the emergence of outside leadership and the push to tie oceans policy more tightly to broader government priorities, such as sovereignty and security, and the development of new commercial opportunities in fields like ocean technology, that the oceans agenda began to achieve more widespread support.⁴⁰ This new approach was accompanied by a growing commitment to the idea that adopting a “sustainable development” approach, along with the adoption of ecosystem management and participatory or “integrated” management could overcome the failures of the past and could even become a source of national unity and pride for all Canadians.

Before delving into the specifics of how this new approach was put to work in particular settings, however, it is important to first discuss the historical circumstances that have given rise to the present configuration of ‘ocean users’ in Newfoundland. Accordingly, the next chapter examines the management of the Newfoundland fishery over time, paying particular attention to the way in which the “high modernist” ideology that dominated the fishery during the twentieth century transformed the relationship between coastal residents and the sea.

Chapter 4 A Cod Forsaken Place: The Rise and Fall of Fisheries Management in Newfoundland (1497-1992)

This chapter summarizes the history of the Newfoundland cod fishery, from the time of the arrival of the first European migratory fishers circa 1500 to the closure of the commercial cod fishery in 1992. It focuses primarily on the way in which a “high modernist” ideology shaped the management of the Newfoundland fishery during the twentieth century, especially after Canada’s declaration of a two-hundred mile exclusive economic zone in 1977. Under the direction of Canadian government planners, there was a firm division imposed between land and sea-based economic activities which had never existed previously. New government programs sought to reduce dependence on the fishery by forcibly resettling people into larger centres and encouraging the development of new land-based industries. They also sought to replace the traditional salt fish trade with a fresh and frozen fish industry, characterized by larger boats and modern fish processing facilities. The fishery was also subjected to a new regime of scientific fisheries management and central planning, the likes of which had never been seen before. The promise of modernization soon proved hollow, however, as economic and ecological forces which were not anticipated by planners gradually undermined their ambitious visions for the future. This ultimately contributed to the biological collapse of cod stocks in the early 1990s and the loss of tens of thousands of jobs across Newfoundland.

4.1 European Expansionism and the Growth of the Newfoundland Fishery

On the Grand Banks, the cold waters of the Labrador Current, travelling south, meet the warm waters of the Gulf Stream, travelling north. This convergence of forces stirs up nutrients from the ocean floor, creating one of the world's richest offshore fishing grounds (Sider 2003). Many of the bays and coves that line the coast of Newfoundland and Labrador have proven to be extremely productive as well, primarily during the spring and summer months, when offshore cod migrate inshore in pursuit of schools of capelin, their preferred food source. Legend has it that when John Cabot, a Venetian explorer commissioned by the British monarchy, first made landfall on the east coast of the island in 1497, codfish along the island's shores were so abundant that crewmen aboard his vessel were able to harvest them in baskets lowered over the side of the boat (Pope 1997).⁴¹

News of Cabot's "discovery"⁴² spread quickly across Western Europe and, by the early 1500s, Portuguese, French, Spanish and Basque fishers were venturing across the Atlantic each summer to take part in the Newfoundland cod fishery (ibid.). For the most part, the catches of migratory fishing fleets were used to supply markets in Western Europe, although the preferred methods used to preserve the fish varied considerably between nations. The urban French market demanded a "wet" fishery, which involved preserving the cod while still at sea, by gutting them and soaking them immediately in a briny solution of salt and water (Turgeon 1998; Pritchard 2004). The Spanish and Portuguese markets, by contrast, preferred a "dry" fishery, in which cod was preserved by

splitting, filleting and, salting the fish and then slowly drying them on land (Turgeon 1998). This dried “salt fish” was capable of lasting a long time before perishing and, accordingly, it became an important staple for the large navies that fuelled the colonial expansion of these two powers in Central and South America, the Caribbean, and the Indian Ocean.

Despite Cabot’s initial claim to the island, there was very little British involvement in the Newfoundland fishery until the end of the sixteenth century. The main reason for this is that ports in the northeast of England were already heavily involved in the Icelandic cod fishery, and this was sufficient to satisfy domestic demand (Pope 2004). It was only when increasing government controls and domestic inflation brought about a gradual decline in the Spanish and Portuguese fisheries in Newfoundland that fleets based in Bristol and other ports in the southwest of England began to play a more significant role in the Newfoundland cod fishery, hoping to capitalize on the high demand for salt fish that existed in southern Europe.

By the middle of the seventeenth century, France and England had become the two dominant players in the Newfoundland cod fishery (Pritchard 2004). The seasonal Newfoundland fishery proved so productive that two year-round sponsored English colonies were established on the island in the early 1600s, Cupids in Conception Bay (1610-1621) and Ferryland on the Southern Shore of the Avalon Peninsula (1621-1629). Both were abandoned after about a decade, however, in favour of more temperate sites in what is now the United States (Cell 1982, Lahey 1982).⁴³ Despite these failed ventures,

the English presence on the island grew steadily during the next fifty years and, by the 1670s, there were at least thirty seasonal English settlements scattered along the east coast of Newfoundland. Most of the larger stations employed significant numbers of servants to help prosecute the fishery and, although the British crown had imposed a ban on year-round settlements on the island, it soon became common practice to leave a small group of servants to over-winter on the island and guard valuable coves to make sure that they were not taken over by another merchant operation in the following season (Handcock 2000).

The French occupation of Newfoundland was concentrated along Newfoundland's south and west coasts. By the 1660s, concerns that the British were gradually encroaching into what had historically been French territory, prompted the construction of a fortified year-round settlement at Plaisance (on the site of the present-day town of Placentia in Placentia Bay) to defend their interests in the region (The Newfoundland Herald 1988). Plaisance was chosen because it was in close proximity to very good fishing grounds, it boasted excellent beaches for drying fish, and it was surrounded by hills which made it easy to defend (Town of Placentia 1998).

The eventual downfall of Plaisance was not, however, military but diplomatic in origin. As part of the Treaty of Utrecht, which was signed in 1713, France formally recognized British sovereignty over Newfoundland. It agreed to abandon all territorial claims in the area, including Plaisance, but was allowed to keep fishing rights along the north and west coasts of the island, from Cape Bonavista to Point Riche (Hiller 2001).

France was also given the right to cut wood on the Labrador Coast “for the erection of fishing premises and the repair of vessels” (Anderson 1984: 26).

With the British claim to the island now more secure, merchants from the English West Country began to establish more year-round operations in eastern Newfoundland. These operations were much larger than had been evident in the previous century and some included hundreds of servants as well as many resident families (Handcock 2000). The early part of the eighteenth century also marked the entry of substantial numbers of Irish workers into the Newfoundland fishery for the first time. Ships from the English West Country bound for Newfoundland would regularly stop in Irish ports, primarily Waterford, to pick up salt provisions and Irish labourers for the fishery (Mannion 2006).

For the most part, the English “banker” fishery was built around large wooden schooners which carried a number of smaller vessels called “dories” (Thurston 1982). Fish were caught aboard the dories using hand lines and then returned to the schooner to be salted and packed before being brought back to land to be dried. This industry, in turn, helped to stimulate the development of other fishery-related manufacturing operations in many settlements, such as boat building and sail making.

The commencement of the Seven Years War in Europe rekindled hostilities between France and England, and this had significant repercussions in Newfoundland. The war concluded with the signing of the Treaty of Paris in 1763. This agreement brought about a substantial realignment of the North American territories held by England, France and Spain. As part of the Treaty, France ceded the entirety of Canada to

England, along with all of its territories to the east of the Mississippi River. Instead of fighting to retain control of its North American territories, France preferred to reclaim the sugar producing islands of Guadeloupe and Martinique, which had been recently conquered by the English. After 1763, France's only remaining territorial claim in North America was over St. Pierre et Miquelon, a small island archipelago off Newfoundland's south coast, which it could use as a base from which to conduct its fishery on the Grand Banks. It also retained the right to fish off Newfoundland's north and west coasts, although French vessels were not permitted to come ashore (Hiller 1998a).⁴⁴ With England's territorial claim to the region now largely uncontested, Captain James Cook was able to chart the Newfoundland coast between 1763 and 1767 (The Newfoundland Herald 1995).

4.2 A Colony Takes Shape (1790-1855)

While mercantile centres across the island continued to prosper, year-round settlements in Newfoundland remained relatively few in number for much of the eighteenth century. It was not until the commencement of the Napoleonic and French Revolutionary Wars in Europe during the 1790s, along with associated conflicts in the Americas, that the migratory Newfoundland fishery began to decline and permanent settlement began to take hold in earnest. A number of different forces that were associated with these wars made the migratory fishery much less feasible. For one thing, there was a sudden shortage of labourers and boats brought on by the high demand for suitable vessels and experienced mariners in the military (Janzen 2001e). In addition,

there was a recession that was triggered by the closure of Spanish markets to English salt fish and growing competition from rival producers in Scandinavia and the United States. This led to a sudden fall in the price paid for Newfoundland fish and led to a slew of bankruptcies among West Country merchants who had invested heavily in the fishery during the very prosperous 1780s (Tulk 1997: 19). By the early 1800s, large numbers of British West Country merchants had moved away from the Newfoundland fishery to concentrate on other ventures, which were believed to be less risky (Tulk 1997, Janzen 2001e). Between 1793 and 1807, the British migratory offshore fleet fell from 82 vessels to only 33 and, of these, 30 fished out of St. John's (Janzen 2001e).

The decline of the migratory fishery created an opportunity for permanent settlement to take hold. A further incentive was created by much higher fish prices brought on by the recovery of European fish markets, the emergence of new markets in the West Indies, and the near complete suspension of American salt fish production during the War of 1812. Together, these developments contributed to unprecedented prosperity and drew large numbers of permanent settlers from southern Ireland and the English West Country, many of whom were escaping economic hardship in their homelands (Janzen 2001b). Between 1790 and 1835, Newfoundland's population multiplied seven-fold to about 73,000, as waves of immigrants moved across the Atlantic to exploit the fishery (Statistics Canada 2007). These included far greater numbers of women and children than had been the case in previous eras (Janzen 2001c). On the

strength of this population explosion, Newfoundland was formally recognized as a British colony in 1825 (Long 1999).

Immigration to Newfoundland came to an abrupt stop by around 1840, when a downturn in the fishery, combined with better opportunities on the Canadian mainland and in the United States prompted many would-be migrants to go elsewhere instead (Newfoundland and Labrador Heritage Web Site Project 1997). Rates of immigration to Newfoundland have remained extremely low ever since, and many of the island's approximately 500,000 current residents can trace their lineage directly back to these early settlers.⁴⁵

The decline of the migratory fishery also witnessed the emergence of St. John's as the new centre of merchant capital for most of Newfoundland and Labrador (Tulk 1997). This brought about more connections between the many fishing stations that dotted the coast than had ever been the case previously. Prior to the 1790s, these settlements tended to have much closer economic ties with ports in England than they did with each other (Janzen 2001e). With links to Europe increasingly severed, however, St. John's quickly became "the economic, social, military and administrative centre of an emerging colonial society," boasting a population of around 10,000 by 1813 (ibid.)

In most rural coastal settlements, men would harvest cod using small boats and stationary technologies, such as hooks and lines, when the fish migrated into near-shore waters each summer. The cod were then cleaned, salted and dried locally, with all family members playing a part in the curing process. Finally, this "salt fish" was traded to

merchants for export.⁴⁶ Merchants, in turn, would provide fishers with credit, which could be used to obtain imported food items and manufactured commodities. Most common among these were: “salt, lead weights, nets, flour, tea and molasses” (Kennedy 1997). Although fishers were typically granted significantly less than market value for their catches under this “truck system,” the economic credit extended by merchants helped most families to survive resource fluctuations, hard winters, and sporadic shortages (Sider 1986; Cadigan 1995). In addition to commercial fishing for cod, people were also able to procure food and other necessities through a combination of animal husbandry (cows, sheep, horses, pigs, fowl), small-scale agriculture (potatoes, carrots, turnips, cabbage, hay and, in some cases, oats, wheat and/or barley) and subsistence fishing (trout, salmon, cod), hunting (caribou, hares, beavers, otters, foxes, partridge, ducks and other waterfowl) and gathering (berries and other wild plants) (Wix 1836; Tulk 1997).

Sider has argued that, under the merchant system, coastal fishing settlements retained some degree of autonomy, albeit within a larger context of domination by distant capital, because they were able to retain “substantial local control over their own social relations of work and daily life” (Sider 2003: 24). He links this to the common property nature of the fishery resource, which by its very nature could not be easily “taxed, enclosed, or alienated” (Sider 2003: 91). As a result, fisher families in Newfoundland were able to sell “the product of their labor, not their labor itself” (ibid: 91). Sider cautions that the autonomy of salt fish producers was, however, “fundamentally illusory” and was made possible only through their relative isolation (ibid: 304).

After the brief economic boom of the early part of the century, prices for Newfoundland salt fish plummeted once again, due in large measure to stiff competition from Norwegian and French salt fish producers who were also competing for control of the Mediterranean market (Janzen 2001b). This plunged Newfoundland into an economic depression, leading to the bankruptcies of numerous merchant firms.

4.3 The Age of Independence (1855-1934)

In 1855, Responsible Government was established in Newfoundland for the first time, a status which persisted until 1934 (Long 1999). The latter part of the nineteenth century brought about significant changes in both the inshore coastal fishery and the offshore banker fishery. While cod remained the mainstay of most inshore harvesters, some people throughout Newfoundland began to move away from the conventional hook and line fishery to embrace new methods, such as cod traps and trawls. Cadigan has argued that dwindling catches, in spite of increasing effort, prompted some fish merchants to demand the use of these more efficient gear types in an effort to sustain or increase production (Cadigan 2003). Although people in some areas of the province complained that these new technologies were too efficient and would eventually destroy the fishery, the government refused to respond to demands to regulate the industry more stringently (Bavington In press). Some have suggested that this was due to the fact that many politicians regarded the coastal fishery as backward, and did not see it as a major component of Newfoundland's economic future. Instead, their preference was to invest in the development of modern, land-based industries (Wright 2001; Cadigan 2003).

While participation in the inshore fishery was a critical element in the survival of small coastal villages, it is important to recognize that the production of fish for export was only one part of a much more complicated way of life. In most areas, fishing continued to be supplemented by a range of other subsistence practices, which better enabled people to withstand downturns in the abundance of key species. When they were not busy catching and processing fish, the majority of rural households had to devote time to making their own clothing and furniture, harvesting and processing wood for heating and building purposes, and engaging in subsistence food production.

In areas with less abundant local fisheries, some men would instead choose to participate in the “Labrador fishery.” Since the turn of the century, schooners from Newfoundland would travel northward each spring to take advantage of the inshore cod fishery off the Labrador coast. This migratory fishery drew large numbers of labourers from across eastern Newfoundland each year.⁴⁷

The sudden downturn in the health of the Labrador fishery in the 1880s prompted an intensification of the Newfoundland-based banker fishery, as schooners would leave from major ports in Newfoundland to fish on the Grand Banks. Although vessels throughout Newfoundland sought to exploit the offshore cod resource, they were by no means alone in their use of the Grand Banks. Each year, about 800 schooners also sailed northward from the ports of Boston and Gloucester, Massachusetts to fish for cod (NOAA Fisheries 2005). Canadian schooners also fished the Grand Banks at this time, sailing mainly out of Lunenburg, Nova Scotia (Andersen 1999).

The newly independent government also sought to encourage new forms of resource development on land as a way of reducing economic dependence on the fishery (Sinclair and Ommer 2006). Between 1844 and 1875, the “Crown lands acts,” “provided for the alienation of land as private property for agricultural, sawmilling, and railway expansion” (Cadigan 2003: 22). By the 1860s and 70s, the government had begun leasing large tracts of land in the island’s interior to sawmill operators in an effort to develop a forest industry. While this drew protests from some residents who lost access to lands that had been used for subsistence purposes, the government persisted with its plan (ibid.). In the 1890s, it completed construction of a railway system that traversed the island and made it easier to exploit the largely untapped resources of the interior (Schrack et al. 1992). By the early part of the twentieth century, even larger plots had begun to be granted to British lumbering companies. In 1909, a pulp and paper mill was established in Grand Falls, in central Newfoundland, and this was followed by a second in Corner Brook, on the west coast of the island, in 1925 (ibid.).

Efforts were also made to encourage the mining industry. By 1864, a large copper mine was established at Tilt Cove on the north coast of Newfoundland (Decker 2002). Elsewhere in Newfoundland, a very large iron ore mine opened on Bell Island in Conception Bay in 1895, employing hundreds of people. Then, in 1927, the company town of Buchans was established deep in the island’s interior to mine a large deposit of zinc, lead, copper, gold and silver (ibid.). There were also a variety of smaller operations in various parts of the island over the next few decades (Rennie 1998).

Despite the efforts of Newfoundland's politicians, however, the economic impact of these developments was quite limited in most rural, coastal areas. For the most part, coastal settlements remained highly dependent on the fishery for their livelihoods (Wright 2001). To the extent that people in fishing families did partake in these other economic activities, it tended to be on a part-time basis. Many men would fish in the summer and travel to other parts of the province in the winter in an effort to supplement their fishing with some form of cash income. Others would travel to urban centres, like Toronto, Boston and New York to find work as labourers for construction or manufacturing companies. Still others developed secondary trades that could be sold to or bartered with others in their home communities. In many respects, this emerging occupational pluralism parallels the situation described by Pi-Sunyer in his ethnographic study of Cap Lloc, a small fishing (and increasingly tourism) community on the coast of Catalonia in the 1970s. He noted that, for most people, fishing was not considered to be a part-time, much less a full-time job, but rather as "one segment of a diversified economic base that includes horticulture and some degree of wage labour" (Pi-Sunyer 1977: 42). He, furthermore, pointed out that these complementary trades were rarely viewed as secondary to fishing. Rather, they made up part of a larger economic strategy, which enabled fishing people to respond to events that were largely beyond their control, such as fluctuations in their catches (ibid.).

In the end, however, dreams of a diversified and prosperous rural economy within an independent Newfoundland were never to be realized. A chain of events that followed

the First World War brought about dramatic social and economic changes on the island and ultimately led to the downfall of the Newfoundland government. Newfoundland sent a large fighting force to Europe and many faced front line duty. By the close of the War, the Newfoundland Regiment had suffered a 72 percent casualty rate. Of the 5,482 Newfoundland men sent overseas, about 1500 were killed and about 2300 were wounded (Newfoundland and Labrador Heritage Project Web Site 1997). In addition to the loss of so many young men, Newfoundland also suffered financially. The nation borrowed heavily to finance the War and, while it did eventually pay back the \$35 million it had spent, these payments added significantly to its public debt. The situation was worsened significantly with the onset of the Great Depression and the subsequent plummeting of fish prices, which ultimately lead to the downfall of the merchant credit system. This left many rural Newfoundlanders destitute and in need of government relief. The situation in the capital city of St. John's was equally dire, as urban residents could not turn to subsistence practices in order to obtain food (Wright 2001).

By 1934 with the young dominion saddled with a crippling \$97 million dollar debt, rising levels of poverty, and growing public discontent with an increasingly corrupt government, Newfoundland's constitution was suspended and replaced by a British appointed Commission of Government. This made it the first and last country to ever "voluntarily" relinquish its sovereignty (Hiller 1998b; Long 1999).

4.4 High Modernism and Economic Development

In his book *Seeing Like a State*, James Scott (1998) defines “high modernism” as “a supreme self-confidence about continued linear progress, the development of scientific and technical knowledge, the expansion of production, the rational design of social order, the growing satisfaction of human needs, and, not least, an increasing control over nature (including human nature) commensurate with scientific understanding of natural laws” (1998: 90). High modernism is characterized by the belief that the workings of nature are logical, ordered, generalizable, quantifiable, and predictable. It suggests that only experts are capable of uncovering nature’s ‘laws’ and, therefore, tends to view other ways of understanding the world with suspicion, if not disdain.

Building upon Foucault (1991), Scott claims that one of the central elements of high modernist statecraft in the twentieth century has been the attempt to impose “legibility” upon both biological systems and human populations. By this he means that they have been subjected to a variety of standardized quantitative measures designed to make them more easily observed and manipulated from the outside (ibid.). Scott and others have, furthermore, argued that the unflinching faith that high modernist thinking places in science and planning to deliver progress has been at the root of a variety of state and non-state schemes to set rural societies on the path toward “modernization” and “development” (Sachs 1992; Escobar 1992, 1995; Peet and Watts 1996; Arce and Long 2000).

Escobar (1995) has similarly noted that the modernist discourse of “development” became ubiquitous in the twentieth century, particularly after the Second World War, as the search for new markets and natural resources prompted many industrialized countries to look for ways to extend their economic influence into less developed areas of the world. Under the “developmental gaze” of Western planners, differences between non-industrialized societies were effectively ignored. All were constructed as backward, inhibited by their poverty, ignorance, and antiquated cultural traditions (1995: 8). Escobar claims that, in spite of the humanitarian facade presented by most development programs, they are best understood as techniques for eradicating local traditions and subsistence strategies and allowing for an efficient expropriation of natural resources (1992: 135).⁴⁸ Following Sinclair (1987), House (1988), Apostle et al. (1998), Wright (2001) and others, I argue that the same high modernist ideology that fuelled the international development movement has been very much at the heart of efforts to transform Newfoundland’s environment, economy, society and culture during the twentieth century.

4.5 The Commission Government and the First Wave of Modernization (1934-1949)

Given the centrality of distant markets and highly migratory fish, bird, and marine mammal species in the ecological and economic history of Newfoundland, it is difficult to speak of a coherent local environmental management system that existed prior to the establishment of formal resource management bureaucracies. Rather, the position taken here is that the term “environmental management” is best reserved for the historically specific idea that “nature” can be understood through modern science, and this knowledge

can be used to make instrumentally rational interventions. The considerable uncertainties that have historically characterized life in Newfoundland and Labrador make it difficult to believe that resident peoples had any illusions about being able to fully understand, much less control, their environments. This was confirmed through a number of interviews with retired fish harvesters and other elderly people, who generally agreed that the seasonal abundance of many fish and game species necessitated that people try to catch as much as they could during the short periods when particular species became available. Since most of these species were not in reach for most of the year, and harvesting capacity was limited by the technologies that they had available to them at the time, the threat of catching too many fish was generally not considered serious.

There was, furthermore, relatively little effort made on the part of the Newfoundland government to manage the activities of fishers and hunters prior to the suspension of independence in 1934 (Wright 2001). This was probably because the cash strapped government lacked the funds that would have been needed to administer prescriptive regulations. While some regulations were in place governing such things as the length of fishing and hunting seasons and the kinds of technology that could be used, they were not tightly enforced (Cadigan 2003).

These trends began to change after Newfoundland relinquished its sovereignty. Upon assuming power, the new British-appointed "Commission Government" began to push for the modernization and industrialization of the fishery. One of its first acts was to establish a centralized regulatory bureaucracy to manage all natural resource industries,

including fisheries, forestry, mining, and agriculture. This represented the first concerted attempt to manage the environment in a hands-on fashion (Wright 2001). Newly appointed resource managers stressed the importance of applying the ideas of centralization and economic efficiency to the fishery. They also believed in the importance of taking advantage of new developments in fisheries science and management and, to that end, they invested in the construction of a new scientific fisheries research centre in 1940 (ibid.).⁴⁹ New regulations and licensing regimes were introduced in the salt fish industry at this time as well, although there were increasing calls on the part of managers for producers to move away from the salt fish sector altogether and establish a frozen fish industry in order to tap into the growing American market for mass produced frozen foods (Alexander 1977). In support of that goal, the Commission government offered low interest loans to a number of companies in the early 1940s to build frozen fish processing plants, and larger vessels capable of catching enough to provide these plants with a steady supply of fish (Wright 2001).

While the fishery continued to be the primary source of income for most residents of coastal communities in rural Newfoundland throughout the 1930s, the island's involvement in the Second World War would provide wage labour opportunities on a scale that had never been experienced before. Aside from localized forestry, mining and construction operations which employed no more than a few thousand people in total, paid jobs remained almost non-existent in much of rural Newfoundland prior to the War (Wright 2001). This began to change by around 1940. Newfoundland's strategic location

at the easternmost point of North America made it a highly desirable place from which to launch the American and Canadian contributions to the war effort in Europe. In 1940, as part of the *Anglo-American Lend-Lease Agreement*, the United States agreed to supply the United Kingdom with fifty destroyers. As payment, they were given ninety-nine year leases to build bases in various locations in Newfoundland and the Caribbean (Bruce 2006). Shortly thereafter, construction began on three large American military bases in different parts of the island. The bases supplied short-term labouring jobs to large numbers of people from across Newfoundland and the Maritime Provinces. Several smaller Canadian bases were also built, along with a new international airport at Gander in central Newfoundland (Matthews 1987).

The war had significant consequences for the Newfoundland fishery as well. Fish prices spiked with the high demand for protein sources in Europe during the war. This helped to provide justification for the continued intensification of frozen fish production. By the end of the war, there were a total of eighteen frozen fish plants owned by six different companies (Wright 2001).

4.6 The Canadian State and the Second Wave of Modernization (1949-1992)

On June 3rd, 1948, a referendum was held to determine Newfoundland's future. Voters were given the opportunity to choose between three possible options: declaring responsible government; continuing with the Commission of Government; and entering into confederation with Canada. The results were extremely close with responsible government receiving 44.6 percent of the vote, confederation receiving 41.1 percent of

the vote and the Commission of Government receiving 14.3 percent of the vote. While the responsible government option had won, the margin of victory was not accepted as a clear majority and an extremely controversial decision was made to hold a second referendum with the Commission of Government removed from the ballot. When the referendum was held on July 22nd, Newfoundlanders voted by a narrow margin (52.3 percent) to become the tenth Canadian province, and, on April 1, 1949, Newfoundland formally entered into confederation with Canada.⁵⁰ While the decision to join Canada made residents of the new province eligible for a range of new social services, such as social assistance, old age pensions, baby bonuses, and Employment Insurance, it also surrendered full control over the management of fisheries and all other activities in marine waters to the Canadian federal government (Wright 2003).

After confederation, the Canadian government sought to continue the push toward a modernized fishing and fish processing industry, consistent with its existing policies in the Maritime Provinces (Wright 2001). Canadian officials shared the Commission of Government's view that the Newfoundland fishery should be developed in the most rational, efficient, and productive manner possible. This rationality, it was believed, could best be achieved by further industrializing the fishery, based on the model that had been used in other successful resource and manufacturing industries (House 1988). Shortly thereafter, the federal Department of Fisheries announced that it would be centralizing its scientific and managerial operations in Ottawa, the national capital, as part of its larger move toward bureaucratic modernization (Wright 2001).

In the 1950s, a high proportion of the cod, haddock and redfish landed in Newfoundland was gutted and frozen into ten pound blocks which were then exported to major American fish markets in Boston or Gloucester, Massachusetts, where they were usually reprocessed into fish sticks or other battered products. High US tariffs placed on imported battered fish products generally deterred Newfoundland processors from carrying out secondary processing operations, such as battering and breading, in the province. The duties applied to ten pound blocks of frozen fish were much less severe, so that tended to be the preferred export commodity (ibid.).

The 1940s and 50s also witnessed the emergence of new engine powered trawlers, which quickly revolutionized fisheries the world over. Technological changes that emerged during the Second World War, such as the advent of sonar and new navigational technologies, in combination with an abundance of inexpensive fossil fuels, prompted the world's fishing powers to develop fleets of 'midshore' draggers and 'offshore' otter trawlers. These boats fished by dragging large weighted nets along the ocean bottom and were capable of following migrating schools of fish rather than waiting for them to move inshore. Some of the larger trawling vessels were also able to continue fishing through the winter spawning period, despite heavier seas and the presence of high concentrations of sea ice in more northerly regions. Spurred on by these developments, European, American, and Canadian trawlers soon began to intensify their fishing efforts on the Grand Banks (ibid.).

As the practice of flash freezing catches aboard trawlers became more affordable in the 1960s, vessels began travelling from much greater distances and staying at sea for much longer periods of time than had ever been the case in previous years. This innovation drew new fleets from East Germany, the Soviet Union and Japan to fish off the Newfoundland coast, joining existing fleets from Spain, Portugal and Italy (Schrang et al 1992; Wright 2001). Wright (2001) notes that the number of foreign offshore vessels over 40 gross tons in weight that were fishing off Canada's east coast rose from about five hundred in the early 1950s to almost a thousand by the early 1960s. In these years, foreign trawlers were allowed to fish as close as three miles from shore and this often brought them within view of coastal communities. In particularly rich fishing areas, it has been reported that the lights from the assemblages of trawlers made them look like floating cities at night (Wright 2001). Since inshore fishers depended primarily on fish like cod that spawned in offshore waters before migrating inshore in the summer to feed, the enormous catches of foreign offshore fleets soon began to contribute to diminishing catches in many parts of the island (ibid.). This fuelled demands on the part of many fishers and coastal communities for the government to take action against foreign trawler fleets (ibid.)

Wright (2001) argues that the federal response to their demands was two-pronged. Firstly, the Canadian government began negotiating with European fishing nations in an effort to broker an agreement at the international level. While such multilateral negotiations are ongoing to this day, Newfoundland fishers and politicians have often

complained that they have done little to conserve fish stocks. Some have claimed that the protection of Atlantic fish stocks has often been sacrificed in order to preserve positive trade relationships for other Canadian commodities, such as wheat and steel (Harris 1998). The other federal strategy was to invest in new technologies and skills development within the fishery to make the Canadian fleet more competitive with their foreign counterparts (Wright 2001).

Prior to joining Canada, most rural Newfoundland fishers lacked the capital and infrastructure needed to travel great distances from shore.⁵¹ This began to change after confederation. The major aim of federal policy in the 1960s was to accelerate the development of a fleet of offshore trawlers. The government also encouraged the building of “midshore” draggers, longliners, and seiners, usually between 40 and 65 feet in length. At the same time, both the federal and provincial governments actively discouraged the small-boat inshore fishery (generally consisting of vessels under 35 feet in length) and the seasonal cycle of subsistence practices that went along with it (Andersen 1979; Sinclair 1985; Omohundro 1994; Apostle et al. 1998; Wright 2001; Sider 2003). On land, continued efforts were made to replace the supposedly “backward” practice of community-based salt fish production with modern fresh and frozen fish processing plants, and Fordist “assembly line” production methods (Wright 2001, Sider 2003).

In the years that followed, both foreign and Canadian cod harvests on the Grand Banks soared, reaching their combined historic peak at about 810,000 metric tons in 1968. This so-called “killer spike” has been identified by some as a major contributor to the

eventual collapse of cod and other groundfish stocks more than two decades later (Hutchings 1999). Despite the bolstering of the Canadian fleet, the vast majority of the 1968 catch was still non-Canadian. Even that which was caught by the Canadian fleet tended to be caught by vessels based outside of Newfoundland (Wright 2001). In 1962, the Canadian offshore fleet consisted of 272 vessels and only thirty-three were based in the province (ibid: 105-6). This would begin to change in the decades that followed.

The further development and expansion of the Newfoundland fishery would require that more people be concentrated in larger population centres, in order to provide inexpensive labour for the growing numbers of fish processing plants that were to be built in the province. This also fit with the high modernist vision of Newfoundland's Premier Joseph R. (Joey) Smallwood. Smallwood was the central figure in Newfoundland politics during the thirty years that followed confederation, retaining his hold on power through six consecutive provincial elections between 1949 and 1972 (Matthews 1983).

Smallwood soon became renowned for his dynamic oratory style, although he had no previous political experience. Prior to becoming Premier, he had worked as a journalist, author, publisher, union organizer, broadcaster, and pig farmer at various points in his life (MacGregor 2003a). Smallwood's governing philosophy was characterized by the belief that Newfoundland must "develop or perish" and he promised to single-handedly "drag Newfoundlanders kicking and screaming into the twentieth century" (Matthews 1987). In keeping with this vision, Smallwood was responsible for investing heavily in the building

of new roads and communications infrastructure and for enacting new laws to restrict subsistence activities.

Beginning in the 1950s Smallwood supported a series of rural resettlement programs designed primarily to move people away from the inshore fishery and into larger population centres. While many rural Newfoundlanders had resettled voluntarily in the years following confederation in order to gain better access to government services, the Smallwood government saw a need to take steps to accelerate this trend. In addition to reshaping the fishery, resettlement was seen as a way of reducing the costs associated with administering health, educational, and social programs and providing various services (telephone access, electricity, running water and sewers, etc.) to a widely dispersed rural population. Resettlement was also viewed as a tool for stimulating the development of other land-based industries (Iverson and Matthews 1968; Matthews 1983; Maritime History Archive 2005).

In 1954, the provincial Department of Welfare unveiled what it called the “Centralization Program” (Mathews 1983: 120). The program initially promised to pay people’s moving costs, but this was soon replaced by a single lump sum payment for each family that agreed to move. In the early stages of the program, the payments were only about \$150 per family, but this was gradually raised over time, reaching a high of about \$600 per family (Maritime History Archive 2005). While this may not seem like much by contemporary standards, it is worth noting that most fishers made less than \$900 per year

at the time (*ibid.*). By the end of the program, 110 communities across Newfoundland had been resettled (Matthews 1987; Tulk 1997, 91).

In 1965, the Centralization Program was replaced by a joint federal-provincial “Fisheries Household Resettlement Program,” which was administered by the federal Department of Fisheries (Wright 2001). The program offered significantly higher payments than had been the case in previous years. Families that moved would receive \$1000, plus an additional \$200 for each member of the household (Matthews 1987). This time, however, payments would only be issued if a number of additional conditions were satisfied. Firstly, there was a requirement that 90 percent of a town’s residents must sign a petition indicating their willingness to leave. This was later reduced to 75 percent (Matthews 1983: 121). Secondly, in order to receive their payments, families had to move to a community that had been designated by the government as a “growth centre” (Maritime History Archive 2005). Many of these “growth centres” were sites that had been targeted for industrial development projects of various kinds, such as fish processing plants and natural resource processing facilities. He was also responsible for securing foreign capital to assist with the development of a variety of manufacturing businesses in rural Newfoundland, creating products as diverse as boots, cement, chocolate bars, and sports equipment (Matthews 1983; Letto 1998). While campaigning for re-election, Smallwood reportedly proclaimed repeatedly that there would be so many jobs after resettlement that fishers could feel free to “burn their boats” (Thurston 1982).

While Smallwood's efforts to stimulate land-based economic development in the years after resettlement did produce some successful projects, the number of long-term jobs created through these initiatives was far smaller than had been hoped for. Most of the manufacturing businesses quickly went bankrupt, due in part to their distance from export markets and suppliers of raw materials and stiff competition from companies in mainland Canada (House 1998; Wright 2003). In the words of Newfoundland journalist and orator Rex Murphy, "Mr. Smallwood's rubber-boot factory and hockey-stick plant have passed generously into that region of myth where...princesses kiss toads...Mr. Smallwood specialized in toads that stayed toads" (Murphy 1999: 3). Smallwood has, furthermore, been criticized for "giving away" resources to companies in exchange for short term employment and failing to fully consider the province's long-term interests (Alexander 1983; Wright 2003).

The resettlement program itself has also faced severe criticism. Some have argued that the petition system was deeply flawed, because it sometimes led to coercion and intimidation within bitterly divided communities (Matthews 1983). Another commonly cited problem was that the program allowed young unmarried people who had already moved away from the community to receive compensation payments as well, if they signed the petition and helped to tip the balance in favour of resettlement (*ibid.*). This provision sometimes had the effect of dividing families.

In total, the two programs resulted in the abandonment of more than 300 communities with a total population of about 28,000 people. This represented about one

quarter of all the communities in Newfoundland and about ten percent of the province's residents (Maritime History Archive 2005).⁵² A final program called the Federal-Provincial Resettlement Program ran from 1970 to 1975, resulting in the relocation of another twenty-nine communities.

From the point of view of Smallwood and other provincial and federal planners, these towns were considered too remote and were therefore seen as an impediment to the modernist project they envisioned for the province. By concentrating people in larger centres they believed that they could wield much greater control over the way in which the provincial economy developed. Government reports on the program at the time tended to emphasize that they were just accelerating the "normal and ongoing process of migration" (Matthews 1983: 122). This portrayal, of course, downplayed the fact that the types of migrations that were required were specifically designed to serve the broader political and economic objectives of the federal and provincial governments. As James Scott notes, historically, the stated rationale for resettlement schemes throughout the world was:

...almost always couched in the discourse of orderly development and social services (such as the provision of health clinics, sanitation, adequate housing, education, clean water, and infrastructure). The public rhetoric was not intentionally insincere; it was, however, misleadingly silent about the manifold ways in which orderly development of this kind served important goals of appropriation, security, and political hegemony that could not have been met through autonomous frontier settlement" (1998: 191).

According to Scott, newly resettled communities are particularly susceptible to hierarchical management. Prior to resettlement, he argues, such groups have “their own unique histories, social ties, mythology, and capacity for joint action.” By contrast, “a new community is...a community demobilized, and hence a community more amenable to control from above and outside” (ibid: 191).⁵³

The resettlement era brought about significant changes within the fishery, as the federal and provincial governments continued to push toward a more streamlined industry, characterized by larger boats and an intensification of frozen fish production. Beginning in the late 1960s, both levels of government began providing loans to many fishers across Newfoundland to enable them to upgrade to larger “midshore” vessels between 35 and 65 feet in length, such as long liners and Danish seiners (House 1988: 192-193). As a result, the Newfoundland “midshore” fleet grew rapidly from about 400 vessels in 1968 to about 1200 in 1981 (Wright 2001: 152). The offshore fishery was expanded considerably in this period as well.

The inshore fishery was less prosperous in the years after confederation. The introduction of seasonal Employment Insurance for fishers in 1957 did, however, make it possible for many inshore fishers to survive through the winter, provided that they were able to secure about three months of paid employment each year (Wright 2001). In the fall and winter many inshore fishing families were also able to continue to supplement their incomes with subsistence activities like hunting, berry picking and wood cutting (Omohundro 1994). Most rural communities also contained ample expertise to allow

them to build and maintain their own homes, and repair their own clothing, boats, fishing gear and, in later years, cars (House 1988: 197).

Inshore fishers were further aided by the introduction of gillnets in the early 1960s. A gillnet is “a rectangular net, usually 50 fathoms long, which hung in a straight line in the water. As the fish swam through the net, they were caught by their gills in the mesh” (Wright 2001: 142). Unlike some other gear types, such as cod traps, gillnets can be “easily moved to take advantage of the changing migration patterns of cod” (ibid: 142). Gillnets dramatically increased the efficiency of the inshore fishery and were soon in wide use throughout Newfoundland (ibid.). Gillnets do, however, have one major disadvantage. In bad weather, gillnets can sometimes become dislodged from the ocean floor and get lost at sea. These “ghost nets” are extremely destructive, because they can continue fishing for years after they have been lost.

In 1977 concerns about overfishing by foreign trawlers prompted Canada to follow other states in unilaterally extending its exclusive economic zone to include all waters within two hundred nautical miles of its coastline. While this move enclosed much of what had been international waters under Canadian jurisdiction, it left exposed the so-called “nose” and “tail” of the Grand Banks and the Flemish Cap, all of which are now understood to be critical spawning and nursery areas.

Shortly thereafter, a new Department of Fisheries and Oceans (DFO) was created by the Canadian federal government, with the stated goal of applying “rational scientific management” to the Atlantic fishery (McCay and Finlayson 1995: 9). DFO adopted a

hierarchical approach to fisheries management, in which small-scale inshore harvesters were given no formal input into key policy decisions (Finlayson 1994; Cadigan 2001; Power 2005). Quotas for both the offshore and inshore cod fisheries were based on scientific stock assessments, which relied exclusively on information obtained from large offshore fishing and processing companies (Cadigan 2001). These companies were seen as preferable consultants because they could provide scientists with quantitative data that could be easily assimilated into stock assessment models (Finlayson 1994; Hutchings et al. 2002). By contrast, the knowledge of inshore harvesters tended to be portrayed as anecdotal, and was granted little credence (Finlayson 1994; Power 2005).

The faith that DFO fisheries managers had in their capacity to predict events in the biophysical world and use this knowledge to drive economic development is a clear illustration of “high modernism.” Scott (1998) argues that managerial solutions rooted in high modernism are often presented as being technical rather than moral or political interventions. Building on Scott’s work, Arun Agrawal (2005) has noted that the turn of the twentieth century saw the emergence of new technologies for representing nature which granted an almost unquestionable authority to resource managers. He writes: “Statistics, maps, numerical tables, and their collation in specific formats can become the basis for producing new forms of knowledge that make some actions seem naturally more appropriate than others...” (2005: 224). Similarly, Pálsson (1998), who studied fisheries research in Iceland, argued that modernist fisheries management suggested that cod populations were fully observable, as though they were being studied in an aquarium.

This simplistic characterization, however, drew attention away from the fundamental uncertainties and complexities that were inescapably part of the fisheries management enterprise. As will be shown in subsequent chapters, these very uncertainties would be made more explicit in the management models that emerged in subsequent decades, which were more heavily influenced by the so-called “new ecology” and its focus on complex, non-linear systems.

Frozen cod production was expanded significantly on the wave of optimism that was stimulated by the extension of the offshore boundary. So too was the harvesting of other species. Despite protests from the Fish, Food and Allied Workers Union (FFAW), DFO expanded the dragger fishery during the following decade and, for the first time in several decades, new licences were issued in the small-boat inshore fishery as well (Felt and Locke 1995). While there were only 13,736 registered full-time inshore harvesters on the island in 1961, this number had almost tripled to 33,640 by 1980 (Crowley 1999).⁵⁴ Much of this increase came after 1977 (Schrang et al. 1992; Hamilton and Seyfrit 1994).

In the late 70s and early 80s, Canadian cod harvests soared. The extension of the offshore boundary served to encourage the intensification of domestic harvesting since, under international law, any portion of the Total Allowable Catch that the Canadian fleet could not land had to be given to foreign nations which had traditionally fished within the 200 mile limit (Finlayson 1994; Bavington 2005). The economic boom created by these developments allowed unprecedented numbers of people to find employment in processing plants.

The enormous demand for labour in the processing sector was also responsible for the entry of growing numbers of women into the wage labour force. Prior to that point, both women and children had played prominent roles in the processing and curing of salt fish, but men tended to be the ones who caught the fish and did business with merchants (Porter 1993; Neis 1999a). Several scholars have shown that this was part of a relatively firmly entrenched gendered division of labour in rural Newfoundland that had developed in coastal communities in most areas of the province during nineteenth and the first half of the twentieth century (Wadel 1973; Porter 1993; Williams 1996; Neis 1999a; Power 2005). Williams notes that, in addition to fishing, men were typically responsible for: fishing, mending gear, hunting and trapping, woodwork and carpentry, whereas women “did most of the farming,” “produced food and clothing,” and “looked after the children and ailing family members” (1996: 7). She adds: “After men dug the gardens, women planted, weeded and harvested. They also picked berries, which in some areas could be traded to merchants. They dried and bottled the berries and vegetables, made daily batches of bread and served at least four meals a day. They made and re-made clothing, bedding and rugs, sawed and chopped firewood and tended the animals” (Ibid. 7). They also did various forms of unpaid work such as “bookkeeping, dealing with suppliers and cooking for fishing crews” (Ibid. 19). While several authors have noted that there were exceptions to these general patterns in some areas (Williams 1996; Grzetic 2004; Power 2005) the vast majority of the wage labour opportunities that were available prior to the 1970s were regarded as the exclusive purview of men (Williams 1996).

After 1977, many more women found employment in the fish processing industry. Some also began working as crewpersons on inshore fishing vessels, which were generally operated by their husbands or partners (Williams 1996; Grzetic 2004; Power 2005). The latter strategy kept money within the family unit, but was not widely practiced in some areas. This is likely because, prior to the 1980s, it was not advantageous to do so, because it would make it more difficult for one or both family members to qualify for Employment Insurance (Power 2005: 170).

While processing plants provided women with independent wages, for the most part they were given lower status positions and paid less than their male counterparts (Fishery Research Group 1986; Neis and Williams 1987; Porter 1993; Williams 1996; Neis 1999a Power 2005). Furthermore, in most areas, women were employed in direct processing operations, as trimmers, packers, and machine operators, and were therefore subject to higher degrees of surveillance from floor managers (Fishery Research Group 1986; Williams 1996; Power 2005). Accordingly, while this boom period did provide new opportunities, the restructuring of the industry during this era also contributed to the formation of new gender, as well as class divisions within many coastal towns (Sinclair 1985; Williams 1996; Palmer and Sinclair 1997; Neis 1999a; Power 2005).

The strategy of rapidly expanding the offshore fishing and processing sectors ultimately proved to be problematic. Many of the larger processing companies in the province had borrowed heavily to finance this expansion, and were ultimately brought to the brink of bankruptcy by the early 1980s as a result of high interest rates and a growing

recession (Fishery Research Group 1986; Wright 2001). In 1982, the federal government appointed the Kirby Task Force to examine the industry and make recommendations about how to move forward. They ultimately recommended a major realignment of the fishery to make it more consistent with the broader goals of “efficiency, consolidation, and centralization” (Wright 2001: 153). In response to these conclusions, the federal and provincial governments paid \$233.5 million to buy up several companies, including Fishery Products Limited, The Lake Group, and John Penney and Sons and merge them into a large crown corporation which was called “Fishery Products International” or FPI (ibid: 153). The company was later re-privatized in 1987. Similar actions were taken in Nova Scotia, to create National Sea Products Ltd., which went on to produce the very successful High Liner brand of frozen seafood. Together these two companies would dominate the offshore fishery in Atlantic Canada in the decade that followed (House 1988: 185). This change had a particularly significant impact in Placentia Bay and Fortune Bay, where both companies had a strong presence.

By the end of the decade, however, the quantitative models of fisheries managers proved to be inadequate. They were based on a simple equilibrium-based science that paid insufficient attention to the ways in which habitat destruction, ecological fluctuations, and unreported human actions affected the abundance of particular species. Furthermore, managers did not heed the warnings of inshore harvesters in several different bays on the northeast coast of the island, who complained about striking declines in their catch rates throughout the 1980s (Finlayson 1994). As discussed in earlier chapters, this exclusion of

fishers from the policy process stands in stark contrast to more recent UN-inspired oceans governance approaches, such as the one outlined in the *Oceans Act*, Canada's Oceans Strategy and Canada's Oceans Action Plan, in which it is openly stated that the knowledge of resource users should be incorporated into the management enterprise.

By the late 1980s and early 1990s, dwindling catches had become apparent in Newfoundland's offshore fishery as well and it was becoming undeniable that stocks in many areas were in serious trouble (Wright 2001). In the face of mounting evidence that they were in the throes of a full-fledged environmental disaster, DFO decided to shut down the fishery on Newfoundland's north and east coasts and along the coast of Labrador in 1992 to give cod stocks time to recover (Finlayson 1994, McGuire 1997). This was followed by further closures along the island's west and south coasts in 1993.

Seventeen years after the initial declaration of the moratorium, there is little evidence of a cod recovery. While the commercial fishery reopened on a small scale in some areas along Newfoundland's south coast in 1998, and some small commercial quotas have been issued on the west coast as well, the commercial cod fishery has remained closed in most areas of the province. A recent study concluded that spawning stock biomass (the reproductively active part of the stock) for the "Atlantic cod" stock off the east coast of Newfoundland and Labrador has been reduced by more than ninety-nine percent since the early 1960s (Hutchings 2004).

Nearly fourteen years after the cod moratorium was declared, there is still considerable disagreement about what exactly went wrong. Despite being one of the most

intensively studied wild fisheries in the world, there remain a variety of competing hypotheses about what factor, or combination of factors, led to the collapse. While most scholars agree that domestic and foreign overfishing played a very predominant role in leading to the crash, there is also some evidence to suggest that other forces may have played a contributing role as well, including cooling water temperatures caused by melting polar ice caps in the Arctic, a decline in key food species such as capelin due to overfishing, increasing predation from a booming harp seal herd, or habitat destruction caused by decades of seismic blasting by the offshore petroleum industry. This diversity of explanations highlights the inherent unpredictability of ocean processes and the immense difficulty of predicting their behaviour, or even definitively explaining how they have behaved in the past. As later chapters will demonstrate, this very uncertainty has sometimes been used rhetorically in support of differing political agendas, such as those advocating for or against the commercial seal hunt, the offshore oil industry or particular fishing technologies (Davis 2000; Power 2005).

4.7 Chapter Summary

This chapter has demonstrated that social and economic networks which stretched far beyond the shores of Newfoundland had a tremendous impact in shaping and transforming the relationship between resident peoples and marine resources over time. While the production of salt fish for distant markets remained the economic anchor of the region for almost 500 years, the lives of the people catching and curing those fish were altered significantly by forces that were largely not of their own making.

The survival of most rural residents in the nineteenth and early twentieth centuries necessitated that they retain a high degree of flexibility in adapting to broader social, economic and environmental changes. As a result, most households supplemented fishing with a wide range of land-based subsistence practices. When it was deemed advantageous to do so, some men would travel far from home to work as labourers in larger fishing, lumbering, mining, construction, or manufacturing operations. In many cases, however, these positions were temporary. Most were taken up during the winter off season or during periods when commercial fish species were less abundant. The common property nature of marine resources meant that rural families knew that they could always opt to return to the fishery to earn a living at a later time if they deemed it advantageous to do so. In this sense, it is fair to say that fishing, subsistence activities, and wage labour were not mutually exclusive, but were rather part of a continuum with many families taking advantage of all three of these strategies at different points in time.

After the 1930s this dynamic interplay between land and sea-based economic activities was increasingly undermined by the high modernist ambitions of central planners. Government policies increasingly sought to impose a strict division between land and sea-based economic practices, as concerted efforts were made to transform coastal residents from single commodity producers into wage labourers, both within the fishery and in new land-based industries (Matthews 1983; Sinclair 1985; Palmer and Sinclair 1997). Increasingly, use of the ocean was restricted to persons employed in the commercial fishing sector. This gradually contributed to the formation of much firmer

distinctions between fishers and non-fishers than had ever been the case in previous eras. Within the fishery, efforts were made to “modernize” the industry by discouraging the small boat fishery and the production of salt fish and pushing toward the mass production of frozen fish for the North American market. This strategy, in combination with heavy fishing pressure from foreign fleets, ultimately backfired, contributing to the biological collapse of cod stocks in most areas of the province and the loss of thousands of jobs. In the aftermath of this crisis, a major restructuring of the Newfoundland fishing industry took shape, which would lead to even greater inequalities within many coastal communities. These changes are discussed in detail in the following two chapters.

Chapter 5 The Great Divide: The Emergence of a New Fishery

This chapter explores the ways in which the Newfoundland inshore fishery was restructured in the wake of the 1992 cod moratorium, focusing particularly on the ongoing efforts by federal regulators to bring about a more “responsible” fishing industry that is less reliant on state support. It begins by drawing upon interviews with fish harvesters, fish processors, and government employees in describing the debates that emerged in the aftermath of the cod moratorium and outlining the restructuring process that followed. It then discusses the lucrative crab fishery that developed in the aftermath of the cod collapse and the political struggles that have emerged over the future direction of that sector.

5.1 In the Aftermath of a Disaster

The announcement of the cod moratorium prompted a dramatic overhaul of the fishing industry (Power 2005). While the impact was felt throughout Atlantic Canada, nowhere was it more severe than in the rural coastal communities of Newfoundland and Labrador, where cod had remained the primary income generator for many households. To compensate the more than thirty thousand fishers and processing plant workers in the province who were directly affected by the closure, along with ten thousand more living in other parts of Atlantic Canada, the federal government unveiled the “Northern Cod Adjustment and Recovery Program” (NCARP) in 1992 and the “Atlantic Groundfish Adjustment Program” (AGAP) in 1993 (Williams 1996). The programs were intended to provide short-term income support to fishers and plant workers and offer fishing licence

buybacks and retraining programs for those individuals willing to move into new professions (Neis 1996; Sinclair et al. 1999; Woodrow 1996). Attendance in retraining programs was not compulsory, however, and they did not draw as many people as had been anticipated (Williams 1996; Davis 2006).

When, by 1994, cod stocks had shown no signs of rebounding, the moratorium was extended indefinitely. NCARP and AGAP were replaced by a five-year, 1.9 billion dollar restructuring program called "The Atlantic Groundfish Strategy" or TAGS (Millich 1999). In addition to providing new funding for licence buy-backs and early retirement programs, TAGS placed a stronger emphasis on retraining people to work in new professions. The "active programming" approach of TAGS was outlined in a brochure entitled "Helping People Help Themselves," which was widely distributed to affected individuals in May of 1994 (Human Resources Development Canada 1994). It promised a more aggressive attempt to move people out of the fishing industry and prepare them to compete in a "diversified and changing labour market" (ibid.). Income support was committed for between two and five years, depending on an individual's years of experience and degree of dependence on cod (ibid.).⁵⁵ This time, however, bi-weekly payments were made contingent on the agreement of workers to "participate actively" in "labour market adjustment" programs (Williams 1996).

The labour market adjustment component of TAGS was intended to provide individuals with: "career planning and counselling; mobility assistance and support for re-employment; measures to prepare individuals for work such as literacy and basic skills

training; and measures designed to enhance employment opportunities such as support for entrepreneurship, restoration of the environment and other community activities” (Human Resources Development Canada 1994). Individuals were expected to meet with designated career planning and employment counsellors to help them to “assess individual employment possibilities, set goals and develop individual action plans” (ibid.). They were also encouraged to take part in a career development program entitled “Improving Your Odds,” which offered a variety of eight-week training courses in rural communities. The courses available varied by region, but common options included: carpentry, hair styling, small engine repair, tailoring, and entrepreneurship. TAGS recipients could also receive support if they decided to take designated college or university courses or complete their high school diplomas. Finally, the program provided incentives for people who were willing to move to more prosperous provinces in search of work by offering short-term financial assistance to partially offset the cost of “seeking work, house-hunting and permanent relocation” (ibid.). In my previous work, I have argued that TAGS may be best understood as a bridge between welfare state-era policies and the new, more overtly neoliberal approach that was emerging during the period, noting: “While TAGS did commit to several years of financial support, it was explicitly designed to persuade people to abandon the lives they had known before and accept a changing economic, political and ecological reality” (Davis 2006: 523). While many initially resisted this pressure, many fishing communities have experienced steadily increasing rates of outmigration since the moratorium (Ommer and Sinclair 2000).

Sider has argued that the economic restructuring that occurred in the aftermath of the cod moratorium brought about a “crisis of social reproduction” in rural fishing communities (2003: 312). He contends that the cultural and material continuity of these places was gradually undermined by a political and economic system that is literally pulling families and communities apart, through widening class divisions, longer trips at sea, and the chronic exporting of people of working age as seasonal or permanent migratory labourers. In this new predicament, Sider suggests that: “...*people must live across and often simultaneously against, the ruptures between their present situation and their past values, their past social relations, their own culture*” (ibid: 57, emphasis in original).

TAGS was strongly criticized in many parts of rural Newfoundland for encouraging people to move away to find employment and not working harder to create permanent jobs in their communities (Williams 1996). A number of researchers have found that many people were very reluctant to relocate because they deemed themselves to be poorly positioned to start over again (Williams 1996; Power 2005; Davis 2006). In my previous research, I have noted that:

Most of those employed in the fishery were in their late thirties, forties, and fifties; had a limited amount of formal education and few transferable job skills; owned their own homes; had school-age children; and had deep historical ties to the people, land and seascapes, and traditions of the area. The vast majority of persons employed in the inshore fishery had family connections to the sea that stretched back multiple generations. Many saw retraining programs as a farce, because they had no intention of moving and, even if they did, they doubted they would be able to find satisfying work elsewhere (Davis 2006: 510).

Several anthropological and sociological studies conducted during the TAGS era found that the state of chronic underemployment that resulted from the fishery restructuring process frequently contributed to various secondary problems in many areas, including increased rates of alcohol consumption and gambling (Davis 2006), growing frustration and anger (Williams 1996), health problems (Neis and Grzetic 2001), and increased strain on family relationships (Power 2005). Some of these problems were due to the fact that displaced people had a great deal of extra time on their hands and were becoming fed up with spending most of their time at home. There were also growing tensions within many coastal towns about perceived injustices over who did and did not qualify for TAGS payments (Williams 1996; Neis and Grzetic 2001; Power 2005) and over the fact that fishers (most of whom were men) tended to receive higher payments over a longer duration than did fish processing plant workers (most of whom were women) (Williams 1996; Neis and Grzetic 2001; Power 2005)

A number of studies that were carried out after the declaration of the moratorium have, furthermore, reported that it also was common for rural Newfoundlanders to blame the federal government for the collapse of the cod stocks, and many resented the fact that they were being asked to pay the price for the mistakes of fisheries managers (Steele, Andersen and Green 1992; Finlayson 1994; Palmer 1995; Williams 1996; Woodrow 1996; Palmer and Sinclair 1997; Davis 2000, 2006; Power 2005). The government-supported push toward industrialization and overcapitalization in the fisheries was also frequently presented as the major cause of the problem (Palmer 1995; Power 2005). Many inshore

fishers also complained that large fishing and processing companies like Fisheries Products International and National Sea Products, with their extensive use of offshore trawlers, were responsible for the collapse, because they fished during the spawning period, discarded undersized fish, and damaged the ecology of the ocean floor (Palmer 1995; Williams 1996). Another source of hostility among many small boat fishers was the unwillingness of Department of Fisheries and Oceans managers to seek input from small-scale regional fishing operations in conducting their stock assessments during the 1980s (Neis 1999b; Cadigan 2001; Murray et al 2005; Power 2005).

5.2 Envisioning the Fishery of the Future

The declaration of the moratorium sparked heated debates about the direction that a restructured fishing industry should take in the future (McCay 1999). In many respects these debates can be understood as the continuation of longstanding philosophical differences that pre-dated the decline of cod stocks, pitting those promoting a highly capitalized and market-regulated corporate fishery against those advocating a smaller-scale, community-based coastal fishery (Cadigan 2001).

In 1994, the Fisheries Council of Canada (FCC), a lobby group representing the largest fish processing companies in Canada, released a report entitled “Building a Fishery That Works: A Vision for the Atlantic Fisheries.” In it, they argued that, Canadian fisheries policy should abandon the goal of managing fisheries in such a way as to maximize employment benefits for individuals living in small coastal communities. The report claimed that this misguided sentiment had dominated fisheries policies since

the late 1970s and was epitomized by a 1978 speech delivered by then Minister of Fisheries Romeo LeBlanc, shortly after Canada had unilaterally extended its exclusive economic zone. In the speech, LeBlanc stated:

Measuring the 200-mile limit as a belt from the coast, we must measure its benefits first of all in relation to those living on the coast. When we divide up those few million tons of fish, the coastal communities of inshore and nearshore fishermen must have first claim....Instead of starting with an offshore, large vessel development that cuts off future inshore growth, *we must build from the independent fleet up and from the coast out.* We must give inshore and nearshore fishermen a greater and an assured amount of fish. As he begins making money, *he can move up to vessels that extend his mobility, increase his catches, and lengthen his working season.* (LeBlanc 1978, referenced in Fisheries Council of Canada 1994, 3, emphasis in original).

LeBlanc's vision was reflected in two federal policies that came into effect during this era: the "Fleet Separation Policy" and the "Owner-Operator Policy." The former divided the Atlantic fishing fleet into three sectors, 'inshore' (vessels under 35 feet in length), 'midshore' (vessels between 35 and 65 feet in length) and 'offshore' (vessels over 65 feet in length). The latter stipulated that vessels in the inshore and midshore fleets were required to be owned by the independent harvesters who operated them. The combined effect of the two policies was to ensure that corporate entities, most notably fish processing companies, could not gain ownership of the inshore and midshore fleets and to ensure that control of those two sectors was left in the hands of independent fishers. No such restriction was placed on vessels over 65 feet in length, which were already owned predominately by processing companies (Fisheries Council of Canada 1994).

The FCC report blamed these two policies for leading to chronic instability in the industry, because they drove “a wedge between processors and supply making it cumbersome and expensive to secure raw material and unduly difficult to conduct effective marketing and production planning” (Fisheries Council of Canada 1994: 17). The incapacity of processors to obtain a secure and affordable supply of fish, the report argued, limited the capacity of the industry to realize its vision of producing higher value products and fishing “for dollars, not pounds” (ibid: 15). The group called for the fishery to be restructured so as to increase its net profitability to the Canadian economy and make it more environmentally sustainable.

The report further criticized the historic refusal of the federal government to “resolve the common property characteristics of the fishery” and for allowing for the continuance of ‘competitive’ fisheries, in which a single quota is set for the entire fleet and harvesters are free to catch as much as they can before the fleet limit is reached (ibid: 3). It argued that this creates a race between fishers to catch as much fish as they can as quickly as they can and this, in turn, further contributed to a “supply-driven” approach which reduced the quality of the fish and made it difficult for processors to respond to the demands of the market. Borrowing elements of the Tragedy of the Commons thesis discussed in Chapter One, the FCC report argued that management decisions should be “de-politicized” and encouraged the federal government to take active steps toward downsizing the number of people working in the fishing and processing sectors. This move, it suggested, could be facilitated by eliminating subsidies to unprofitable

operations, such as grants to processing plants in order to provide jobs in more isolated rural areas and offseason Employment Insurance benefits for seasonal inshore fishers (ibid.).

As an alternative to the status quo, the FCC advocated the adoption of an individual transferable quota (ITQ) system, in which each individual fishing enterprise is allocated a fixed amount of fish, which they may catch at any time when the season is open. ITQs also provide fishing enterprises with the flexibility to land their catch at the times that are most profitable for them, rather than having to catch as many fish as they can when the season opens. Most significantly, they argued that an ITQ system would give fishers *de facto* property rights, which could be bought and sold freely on the market. This, they suggested, would eventually reduce the number of people who depend on the fishery, citing the examples of Iceland, Australia, and New Zealand, where ITQs have been used to bring about greater vertical integration in the industry.⁵⁶

Although individual quotas or Enterprise Allocations (EAs) were introduced in the offshore sector in 1982 and were incorporated into most inshore and midshore fisheries in the 1990s, the latter were not made transferable (McCay 1999).⁵⁷ This meant that no single inshore or midshore licence-holder could receive multiple quotas in any single fishery. The granting of ITQs, by contrast, would give individuals who are struggling an opportunity to exit the industry easily by selling their quotas and gear to other independent operators, processing companies or private investors. This of course,

assumes that all fishers will behave as profit maximizers, and all will be willing to move out of the fishery for the right price (Pálsson 1998; Cadigan 2001)

The FCC report underscored the need for the fisheries management approach of the future to be driven not by “social objectives,” but by the twin goals of sustainability and economic efficiency. It argued that the fishery should, furthermore, be governed by a new “industry-government alliance,” characterized by “a move away from control and excessive regulation” (ibid: 12). It states:

Rather than be frustrated, initiative and enterprise should be harnessed and channeled into productive, sustainable behaviour, using incentive based mechanisms...Industry must be more accountable and responsible for self-management...It must play a greater role in self-policing and should contribute towards the cost of enforcement...Policy changes in these areas will afford government the opportunity to reduce its presence in the industry” (ibid: 12-13).

What would soon emerge, the report suggests, is: “an economically sound, market-driven and self-managed industry offering investors secure and stable opportunities, and accountable to Canadians for the health of the resource and capable of making a net contribution to the Canadian economy” (ibid: vi).

This vision of sustainable development, characterized by privatization of ocean resources and the self-regulation of resource users was a clear attempt to engage with the ideas that became institutionalized at the Rio Summit. By emphasizing the importance of exclusive access rights and participatory management institutions in bringing about a more economically and environmentally sustainable fishery, the FCC sought to steer the debate away from questions about social justice or the harmful impacts of trawling

technology and instead frame the problem as a case of too many fishers chasing too few fish.

5.3 Professionalization and Exclusion

The proposal laid out by the FCC was staunchly opposed by the Fish Food and Allied Workers Union (FFAW), which represents the vast majority of fishers and processing plant workers in Newfoundland and Labrador. The FFAW vowed to fight all efforts to do away with the Owner-Operator and Fleet Separation policies, stressing that they were vital to the maintenance of a just and equitable fishing industry. The union has repeatedly called upon government to recognize the important role played by the independent fishery in ensuring the survival of small coastal communities throughout Newfoundland and Labrador and in the rest of Atlantic Canada, and to resist pressures to let the industry fall entirely into corporate hands.⁵⁸

The eventual response of the recently renamed “Fisheries and Oceans Canada” to these conflicting demands was to reaffirm the rights of independent fishers, but to do so in such a way as to ensure that those that remained in the fleet would be forced to assume greater responsibility for managing their own affairs (Neis and Williams 1997; Power 2005; Ommer 2007). In 1994, the federal and provincial governments worked in consultation with the FFAW to develop a program of professional certification for independent fish harvesters in Newfoundland and Labrador. The primary goal of the program was “to reduce the number of fish harvesters by eliminating marginal or part-

time fishers from the industry, theoretically retaining those who had the strongest attachment to it" (Clarke 2001: 137).

In 1996, the provincial government passed the *Professional Fish Harvesters Act*, which required that all fishers be certified under a newly created Professional Fish Harvesters Certification Board. The Board divided fishers into three categories: Apprentice, Level I and Level II. These classifications were also formally recognized at the federal level through Fisheries and Oceans Canada's new "Commercial Fisheries Licencing Policy," which was released in the same year (Power 2005). Many experienced fishers were "grandfathered" into the program and were given "core status" as Level II fish harvesters. In order to be grandfathered in: "a fisherman had to have fished full time for seven qualifying years" and have "a minimum of \$3,000 (and 75 percent of reported earned income) from fishing during three of the last four years of his qualifying period" (Schrack and Skoda 1999: 3). Fishers with core status were the only ones that were eligible to obtain newly issued fishing licences or to purchase existing licences from other fishers. It was also decided that the total number of core enterprises in the province would be capped at 5400. Anyone else wishing to obtain core status would have to wait for somebody else to retire (ibid.).

So-called "part-time fish harvesters,"⁵⁹ who did not satisfy all of the requirements for "core status" were designated as Level I harvesters and new entrants into the fishery were given "Apprentice" status. Level I and Apprentice harvesters were required to complete a series of training courses if they wanted to remain involved in the fishery.

Most of these courses are taught through Memorial University's Marine Institute in St. John's, which offers training modules dealing with a variety of issues, including: safety at sea, radio communications, and navigation. The Institute has also offered many of these courses at satellite campuses in other areas of the province. Harvesters wishing to obtain Level II status must also obtain the required number of hours of sea time under the tutelage of a Level II harvester in order to advance to Level II status (Professional Fish Harvesters Certification Board n.d.).

Those who did not proceed toward Level II status would be gradually phased out of the industry. This has created a problem for some people, as obtaining Level II status can require a significant investment of time and money. Many of the required courses cost as much as regular university courses, and some students have to commute considerable distances in order to attend them. The high cost of obtaining the required training was decried by some of those I interviewed as clear evidence of the government's intention to phase smaller enterprises out of the industry altogether. Some also argued that it was a deliberate attempt to create barriers that would deter young people in rural communities from choosing to pursue fishing as their livelihood.⁶⁰

The introduction of the professionalization program also drew a number of protests from individuals who felt they had been wrongfully denied "core status." Some went as far as to hire lawyers to pursue their cases. Most Level II fishers that I interviewed acknowledged that there were a number of people who deserved core status, but had "fallen through the cracks" for a variety of reasons.⁶¹ The most common problem

was that they did not possess enough receipts to prove they had sold the required amount of fish during the designated time period. This was often because they had fished with a family member or partner and had sold all or most of their fish in that person's name. Others had sought work outside of the fishery for a period of time during the early 1990s, since there were so few fish to be caught in many areas. These individuals were denied core status because they did not have enough landings over the period in question, even though some had fished extensively in previous years. In many of these cases, anger over the seemingly unjust criteria used to determine who did and did not receive core status built upon existing frustrations about who was and was not deemed to qualify for benefits under the NCARP, AGAP, and TAGS programs. Eligibility for these programs was based largely on groundfish landings in the years immediately prior to the moratorium, so they excluded many of the same people (Power 2005).

While most readily acknowledged that some people had been wrongfully denied core status, many core harvesters agreed with the sentiment that most of the benefits from any future fisheries be restricted to those who had the greatest ties to the industry. Several stated that most of those who were deprived of core status were so-called "moonlighters" who often worked at other jobs and only used their fishing licences during good seasons when the fishery was most profitable. Dan, who had worked with the FFAW in promoting the professionalization program explained:

Probably for the whole history of the fishery in Newfoundland, the fishery was used as an employer of last resort. I wonder whether some of these people were the type of fellas who when things were looking good and it

was easy to make a living in the fishery, they went fishing, but when times were tough, they went to greener pastures.

Paul, who fished in Placentia Bay, echoed these sentiments:

When all these new industries started up, it took a lot of people off the fishing grounds. A lot of people went ashore to get their twelve or fifteen dollars an hour. But I didn't go ashore to help build the oil refinery. I didn't go ashore to work in the fish plants. I didn't go ashore to build the Trans-Canada Highway. I didn't go ashore to build the Hydro Lines across Newfoundland. I didn't ashore to go up and work in Churchill Falls or Labrador City. Instead, I became a professional at my trade and did pretty good at it too.

Both men were of the strong belief that those who had only fished in certain years should be the ones who were excluded in order for the more established harvesters to make a better and more secure living, even though they both believed that this new system would lead to the eventual privatization of what was once a common resource. Similar findings were reported by Power (2005), based on her research on the Bonavista Peninsula in the mid to late 1990s.

5.4 The Rise of the Crab Fishery

Although Fisheries and Oceans Canada managers did review the cases of some individuals who felt they had been wrongfully deprived of core status, very few decisions were reversed. The full significance of these exclusions would soon prove to be greater than anyone had anticipated. Most of those who were able to obtain core status were also able to gain access to the emerging inshore snow crab fishery, which quickly proved to be very lucrative.

The first snow crab licences in Newfoundland were allocated in 1968, and the fishery expanded slowly in the decade that followed. Until the mid 1980s, the crab fishery was prosecuted by only about fifty medium to large sized boats, each of which was entitled to catch as much as they could when the season was open, provided that they did not use more than 800 traps at a time (Fisheries and Oceans Canada 1999). In the early 1980s, crab landings and the catch per unit of effort in many areas of the province dropped significantly, but, as the decade progressed, there was evidence to suggest that stocks were making a significant recovery. Beginning in 1986 and continuing into the early 1990s, the Department of Fisheries and Oceans created a program to issue a number of new “supplementary” crab licences to fish harvesters across the province (McCay 1999). These licences were restricted to individuals in the “midshore” longliner fleet (between 35 and 65 feet in length) and were intended to supplement income that had been lost due to the downturn or closure of other staple fisheries (ibid: 305). There was also a significant intensification of effort permitted in the original offshore fleet at this time. This period also brought a very significant regulatory change in the crab fishery. In the early 1990s, the DFO abandoned the competitive fleet quota system it had employed in the past and introduced an individual quota system, in which each licence holder would be allocated a fixed amount of crab each season rather than having to compete with others to catch as much as they could before the season closed (ibid: 1999). These were not ITQs, however, since in keeping with the owner-operator policy, fishing rights could not

be transferred away from the individually owned vessels with which they were associated (Ibid. 301).

In McCay's (1999) study of the way in which this change came about on Fogo Island, on the northeast coast of Newfoundland, she notes that this step toward privatizing access to the crab resource was a threat to the egalitarian ethic that had predominated within many fishing communities and, accordingly, faced some resistance. Many fishery workers did, however, see benefits to the change, since it allowed harvesters to refrain from fishing in dangerous weather conditions and would provide them with greater economic certainty from one season to the next. She also notes that, between 1992 and 1995, she noticed a growing entrepreneurial perspective among many of the fishers she interacted with, as they began to see themselves as running individual fishing enterprises, rather than simply seeing themselves as members of a fishing family or community (Ibid. 303). A similar conclusion was reached by Power (2005), who found that, on the Bonavista Peninsula, this period was characterized by the emergence of a new "lingo" among fishers that was deeply rooted in the tenets of neoliberal economics, with "words like enterprise, vessel and harvester replacing livelihood, boat, and fisherman" (2005: 136).

Inshore fishers remained largely excluded from the snow crab fishery until the mid 1990s. While some vessels of approximately 35 feet in length were eligible for supplementary licences in the 1980s, relatively few applied for them. At the time, crab prices remained quite low and few people deemed it worthwhile to invest the necessary

time and money that would be needed to prosecute what most believed to be a marginal fishery. Interviews in a number of different areas revealed that, at the time, crab was regarded by many in the inshore sector as a worthless pest, routinely getting tangled up in their fishing nets when they were pursuing other species. By the mid 1990s, however, their perspective had begun to change considerably.

Within a couple of years of the moratorium, it became apparent that snow crab stocks, along with those of other shellfish species like northern shrimp, were booming in many areas. While the reasons for this transformation are unclear, an intriguing theory has been put forward. In an article published in the journal *Science* in 2005, Frank et al. argued that the explosion of shellfish populations just as large predator species like cod were declining is evidence of a “cascading effect” (Frank et al. 2005). The authors used data from the Scotian shelf, off the south coast of Nova Scotia, which is home to many of the same species that are found in Newfoundland waters. The authors claim that, as large predators like cod and haddock were removed from the system through overfishing, the species that they once preyed upon, such as shellfish and smaller pelagic fish, have tended to increase in numbers. This, in turn, has had a trickle-down effect within the food chain. Zooplankton, the tiny animal species that are preyed upon by shellfish and smaller species of fish have experienced a decline of as much as 45 percent as their predators have grown in numbers. As a result, phytoplankton, the algae species that are consumed by zooplankton, have boomed. Frank et al. also note that the recent boom in the seal

population in the region is probably also related to the decline of large fish species, leading to reduced competition for food sources (ibid.).

At the same time that this biological boom was taking place, snow crab boomed in economic value as well. A rapid and unexpected decline in the abundance of both snow crab and the larger and more highly valued king crab in Alaska's Bering Sea prompted a striking rise in the price paid for Newfoundland snow crab in the mid 1990s (MacNamara 2002). Alaskan crab is the primary competitor for Newfoundland crab in the North American market, so the supply crisis brought on by its decline created a golden opportunity for Newfoundland processors and distributors.

The coming together of these largely unpredictable ecological and economic forces also had a dramatic impact on the social dynamics within many coastal communities. Between 1992 and 1995, the average prices paid to Newfoundland harvesters for their snow crab multiplied six fold, from under \$0.40 per pound to almost \$2.50 per pound (Government of Newfoundland and Labrador 1996). This brought unprecedented prosperity to those who held crab licences. Most of those in the offshore fleet had annual quotas of 300,000 pounds per year, while those in the supplementary fleet were landing about 100,000 pounds per year, depending on the area in which they were licensed to harvest. The sudden increase in price meant that these enterprises often increased their yearly income by hundreds of thousands or even millions of dollars. On the north and east coasts of the island, many people with larger boats also benefited from historic landings in the offshore fishery for northern shrimp.

This convergence of events created a widening gulf in prosperity between those who had access to these fisheries and those who did not. As many offshore and midshore operations with crab or shrimp licences prospered, those in the inshore fishery were struggling to make do through a combination of government support payments and smaller scale fisheries for much less profitable species like lobster, capelin, and lumpfish. Complaints about the injustice of this situation eventually persuaded Fisheries and Oceans Canada fisheries managers to issue a number of temporary snow crab permits to some inshore fish harvesters with core status in 1995. A lottery system was used to determine twenty-five harvesters in each of the major bays of the province who would qualify to receive a crab quota for that year.

Prices remained strong that summer and this newfound access to crab stocks proved highly profitable for those who were selected. Dan, who was instrumental in lobbying for this change, described how this situation unfolded in his hometown in the north-western part of Conception Bay:

We got a few permits first. Inshore fishermen fought and fought and fought to get those. We had nothing else. We knew that there was big money in the industry and there seemed to be a lot of crab, so why should the larger boats be the only ones getting to fish it while we were struggling just to hang on, fishing a bit of lump and a bit of lobster and whatever else we could get our hands on? Those guys who got the first permits hit the lottery big time. They got 11,000 pounds of crab at \$2.50 per pound, so that's \$27,000 bucks bang just like that. The guys here caught it in less than a week. That drove the rest of the fishermen crazy, myself included. Not that we didn't want those guys to have it, but we said 'Jesus, this is an opportunity.'

On the strength of the 1995 fishery, the inshore committee of the FFAW was successful in convincing FOC officials to distribute inshore snow crab permits more widely throughout the province for the 1996 season. This was done with the stipulation that the permits would remain temporary in nature and would have to be reissued annually, depending on the state of the resource. In order to be eligible to receive a snow crab permit, inshore fishers had to have core status and hold a groundfish licence. This last provision created further controversy in many coastal communities, because it meant that those individuals who had agreed to sell their groundfish licences back to FOC during the NCARP, AGAP, and TAGS programs along with those who had not been able to obtain core status, were excluded from the snow crab fishery altogether.

At the time that the cod moratorium was declared, none of the inshore harvesters who opted to sell their groundfish licences could have possibly anticipated the consequences of their decision. Inshore groundfish licences usually sold for less than \$25,000, depending on the fishing area in which the licence was held. That figure paled by comparison to the wealth that harvesters with inshore crab quotas would earn in the decade that followed. The frustration of many of these individuals was exacerbated by the decision to reopen the commercial cod fishery to core harvesters in Placentia and Fortune Bays in 1998, areas where the cod population seemed to be recovering.

In the late 1990s, crab landings and prices remained high in most areas of the province. While permit holders still received much lower quotas than those with full or supplemental crab licences, inshore fishers came to rely increasingly on the income

provided by crab. In many parts of Newfoundland, snow crab provided a higher percentage of their annual fishing incomes than all of the other species they fished combined. Because the permits continued to be temporary in nature, however, there was no guarantee that this source of income would continue to be there for them in the future.

This situation changed in 1999, when the inshore committee of the FFAW was finally successful in having all temporary permits turned into permanent licences. This was the culmination of years of struggling to persuade Fisheries and Oceans Canada and representatives of larger fleet sectors within the FFAW that inshore harvesters should be given more secure access to a share of the crab resource. Dan, who was on the inshore committee and attended all of the meetings leading up to the final decision, described the unfolding of events as follows:

We fought our way into the crab industry. We had our toe in the door and then we got up to a foot, and then in 1999 we finally broke the door down. There was a big conference in Gander to decide who was going to fish where and how everybody was going to participate. The original full time fleet and the supplementary fleet and the inshore guys were all at the table. We said, we're getting licences or nobody is catching one god damn pound of crab this year. We had arranged three busloads of people that came from the Southern Shore, Conception Bay and Trinity Bay. That wasn't all the fishermen there, but it was a lot of them. Then we had other guys that travelled from different areas by vehicle. So we had seven or eight hundred fishermen that showed up in the parking lot of the hotel wanting to talk to DFO⁶² and the FFAW. We weren't all formal inshore committee members or anything, but we decided we were going to informally organize people and get a group to go down to have a show of force, because if it is just one or two guys speaking, the guys in the other fleets are going to say that we've got no backing. This way they could see them all standing right there outside the window. Right from then, my feeling is that we had won over the large fleets, the full-time and the large supplementary fleet. They didn't mind moving farther offshore. They

could go off as far as they wanted to, which they do now. As long as they got paid for their time and their fuel with an increase in quota, they were all for it. But the small supplementary fleet felt differently. Many of them had 35 and 36 foot boats of an older style. A lot of them had been fishing in the bay all their lives and weren't used to dealing with bad weather so they had apprehension about going that far from land. They put up a real fight.

The issue was finally resolved at another meeting in St. John's a short time later. Dan explained:

There must have been a thousand inshore guys that showed at the next meeting in St. John's. They were very vocal then, because they knew this was the final decision about what would be done. Then, the fire department came and said there were too many people and they had to get out. But they had a chance to say what they wanted to the managers at DFO and to the other fleets. Before they left, one of the leaders of the group said: 'Now look, we're leaving, we're going to give you a chance to have your meeting, but you best make the right decision. Because, we've got a thousand people here, three hundred right here and another seven hundred downstairs and out in the parking lot. We're going to leave and let you guys discuss it, and you better do it right, because we don't have enough crab right now. We are only getting a four or five thousand pound quota and the TAGS program is finishing up, so we want something to allow us to make a living. If you don't do it right and you don't give us an opportunity, you guys are going to lose big time. You are going to lose your summer too. There are four thousand of us with permits. With our wives and husbands and children and grandchildren and parents and grandparents, we'll block every wharf in Newfoundland and nobody will be going anywhere.'

Eventually this show of force proved successful in providing them with more secure access to the resource. Dan explained:

The argument between the under 35 foot inshore fleet and the small supplementary fleet went on all afternoon. Eventually it got to the point where the other two fleets (offshore and large supplementary) were saying absolutely nothing. And finally an inshore guy stood up and said: 'The argument is between us and them. Now here's how we're going to settle it.

There's two fleets over there that haven't spoken today. You heard the message this morning, but I think you may have forgotten it. If these guys don't move and give us something close to what we're looking for, you guys aren't getting anything either. You've got sixty-five foot boats to pay off and you're not landing anything this summer and they'll be damned if you are.' So they kind of went white...So the commissioner said, 'Well, we're going to take a break to let everybody have a chance to think it through. We (DFO) are ultimately going to make the decision, but we'd rather that you guys were on side than if you were not.' Then a couple of days later, we got the word from DFO that they were going to establish zones for the inshore fishery. The one thing that they said to us is 'You've got an inshore zone inside 22 miles. Go back and tell your fisherman that that is where you're living or dying, because there will be no more movement.'

This notion of allocating a specific area for inshore harvesters, but implying that they would have to suffer the consequences in the event that the fishery proved to be unsustainable is reflective of the broader commitment to self-management and risk devolution that typically characterizes neoliberal approaches in fisheries management. In practice, the specific distance that these exclusive inshore zones extended from shore varied somewhat from one bay to the next, but the general concept was extended across the island.

The entry of inshore harvesters brought with it a significant increase in the size of the overall harvest of snow crab. In 1992, prior to the entry of the inshore fleet, there were only 750 snow crab licence holders in Newfoundland and Labrador landing a total quota of about 10,000 metric tons of crab per year. By 2004, there were 3,411 licence holders in the province and snow crab landings in Atlantic Canada topped 100,000 metric

tons, with the lion's share of that (about 70,000 tons) landed in Newfoundland and Labrador (Canadian Broadcasting Corporation 2005; Canadian Press 2006).

Between 2000 and 2004, snow crab prices remained high. While the profits obtained by inshore crab harvesters represented a mere fraction of those enjoyed by the full time and supplementary fleets, they helped many harvesters to earn unprecedented incomes. The size of the quotas given to inshore harvesters at this time varied from one bay to the next, depending on the perceived health of the local crab stocks and the total number of licence holders in the area, but most received quotas of anywhere from 8,000 pounds per year (Placentia Bay) to over 30,000 pounds per year (St. Mary's Bay). In most areas, inshore quotas were between 10,000 and 20,000 pounds. That usually translated to anywhere between \$15,000 and \$45,000 annually from the sale of crab alone, depending on the price. This was combined with income from fisheries for other species and from a newly restructured seasonal Employment Insurance program, which made it much easier for fishers to qualify for offseason payments due to their high earnings, even as it made it more difficult for fish processing workers and other seasonally employed workers in rural Newfoundland to qualify (Neis and Grzetic 2001).

In 2000, concerns by Fisheries and Oceans Canada scientists that the overall abundance of crab in Newfoundland waters had fallen by as much as 40 percent in one year led the agency to cut the total allowable catch for the province by 17 percent, but quotas remained fairly constant in most areas in the years that followed (MacDonald 2002). Although many inshore fishers that I interviewed in 2004 expressed concern that

snow crab populations were being harvested at unsustainable levels and could soon go the way of cod, many took advantage of their newfound prosperity to add additions to their homes or to purchase new trucks and snowmobiles. This economic boom also helped to drive interest in bars, gambling, and other pastimes (Davis 2006). Such displays of wealth created widely acknowledged tensions in many coastal communities, where numerous individuals did not have access to income from the snow crab fishery and were struggling to make ends meet (ibid.).

One common strategy for women who were married to inshore fishers was to begin working as crewpersons, fishing alongside their husbands or partners (Grzetic 2004; Power 2005).⁶³ This enabled families to hold onto more of the profits from the fishery than they would have been able to if they had hired someone from outside the family. It also made these families much more vulnerable to fluctuations in the prices or abundance of key species, such as lobster and lumpfish.

5.5 The Responsibilization of the Inshore Crab Fishery

The allocation of exclusive fishing zones for inshore harvesters is very much in keeping with the new philosophy governing Canadian ocean policies. While fishers were granted their long desired foothold in the crab fishery, this newfound access clearly came at a price. In granting new snow crab licences, Fisheries and Oceans Canada demanded that inshore harvesters assume greater responsibility for reducing the number of people who depend on the fishery. They were required to adopt a “self-rationalization program,” wherein one fisher would be allowed to buy another one out and combine their two

quotas under a single licence. This was, in effect, a transferable quota system, in that it allowed for quotas to be bought and sold and created a mechanism through which licences could be removed from the system. The number of licences that could be combined was limited to two, however, and private companies continued to be prevented from purchasing these licences by the *Owner-Operator Policy*.

At the same time, independent fishers in Newfoundland and Labrador, and throughout Atlantic Canada, were being required to play a more prominent role in funding and carrying out the science, monitoring and, in some cases, enforcement activities associated with fisheries management than had ever been the case previously (Power 2005). Since 1992, a variety of new collaborative management measures have been initiated. These include: the mandatory participation of harvesters in scientific data collection through jointly conducted and funded surveys and logbook programs; new rules requiring harvesters to pay for some forms of fisheries science and, in many cases, for onboard observer and dockside monitoring programs; mandating that all fishing boats over 35 feet be equipped with GPS "black boxes" which allow them to be easily located and monitored by fisheries managers; programs to encourage the reporting of illegal activities or poaching to anonymous 'snitch lines'; and the development of new consultation bodies, such as the Fisheries Resource Conservation Council (FRCC), through which fishers are expected to provide feedback on management plans and offer suggestions for future management measures.⁶⁴ These changes have occurred against the backdrop of significant cutbacks to fisheries science budgets during the 1990s (Ibid.).

In concert with this new spirit of cooperation and partnership has been growing pressure on harvesters to play a greater role in disciplining themselves and to assume a greater share of risk in the event of another management failure. During the 1990s, several attempts were made to amend Canada's *Fisheries Act* to reflect a new focus on shared responsibility. The *Act* is Canada's oldest piece of environmental legislation, having existed, largely unchanged, since 1868. The proposed changes to the *Act* were strongly resisted by the Canadian Council of Professional Fish Harvesters, an Ottawa-based lobby group representing fish harvesters' organizations from across Canada.

In lieu of formally re-writing the *Fisheries Act*, Fisheries and Oceans Canada developed what it called the Atlantic Fisheries Policy Review (AFPR), a consultative policy process intended to bring about a new vision for fisheries management. The process was launched in 1999 and released a discussion document in 2001 (Fisheries and Oceans Canada 2001). The document called for a new approach to fisheries management and identified a number of key areas of focus, including: conservation, access and allocations, and governance. Wiber (2002) has argued that the AFPR represents a "fundamental change" in management philosophy of the department, "from one of micromanager, heavily involved in day-to-day operations, to one of policy maker and strategic direction setter" (2002: 21-22).

Central to the new approach of the AFPR is a major reconceptualization of the goals of fisheries management. Whereas the high modernist fisheries management approaches of the past expressed faith in the capacity of science to understand and predict

the behaviour of marine ecosystems, the AFPR openly acknowledges that fisheries management is always characterized by tremendous uncertainty and risk, due to the highly complex nature of marine ecosystems. As an alternative to top-down science and management, the AFPR discussion document focuses on developing new mechanisms of governance as a way of bringing about a shared consensus. It states:

Uncertainty is an intrinsic feature of managing a living resource. Fish stocks are subject to changes in the ocean environment. Our ability to forecast the effects of these changes is imperfect; our ability to control them is non-existent. Conservation is paramount, but it does not mean avoiding all risks to stocks or species. What it does mean is avoiding unacceptable risks...Participants in fisheries management decisions must clearly acknowledge the existence of risk and, ideally, arrive at a consensus on an acceptable level of risk. In the event that risks become unacceptable, stakeholders must agree on the actions that are required (Fisheries and Oceans Canada 2001: 16).

Implicit in this argument, of course, is that said stakeholders must also agree to accept their share of the blame in the event that the worst case scenario comes to pass. A representative of the Canadian Council of Professional Fish Harvesters in Ottawa explained the new approach as follows:

The government is now making it so in order to get your quota; you are required to sign a co-management agreement that obliges you to fund the monitoring of the catch and the collection and analysis of scientific data. So you are funding the science related to your own fishery. I believe that is extremely dangerous. They say that the fishery is still a public resource and that resource belongs to the people of Canada, but don't the people of Canada need to have some kind of autonomous determination about the state of that resource. DFO seems to be trying to divest themselves of everything...The trend is to give stakeholders long term access rights, and make them responsible for the conservation and the management of that resource. That way, the money to pay for the research is generated from the exploitation of the resource. At the heart of it is this economic theory

of the Tragedy of the Commons, which is being used to justify the whole thing. The theory is that you don't need to worry as much about enforcement when the property owner is looking after their own long term interests.

The recently elected Conservative Government is once again renewing efforts to "modernize" the *Fisheries Act*, to place a greater emphasis on "sustainable development" principles and bring about an even greater sharing of responsibility between fish harvesters and management agencies. To that end, the government carried out extensive consultations across Canada in the fall of 2006 and put forward a bill to establish the revised *Fisheries Act* on November 29, 2007 (Government of Canada 2006b, 2007). At the time of writing, this bill had not yet been debated in the House of Commons, and it was widely anticipated that it would face resistance from opposition parties.

In 1998, the fishing industry was also further responsabilized through the establishment of a new Canadian Code of Conduct for Responsible Fishing Operations. It was intended to serve as a voluntary code of practice for fishers and was closely modeled on the United Nations Food and Agriculture Organization (UNFAO) initiated International Code of Conduct for Responsible Fisheries, established in 1995 (United Nations Food and Agriculture Organization 1995; Fisheries and Oceans Canada 1998).

5.6 Participation and the Politics of Knowledge

While some of those fishers interviewed indicated that they welcomed the opportunity to play a more active role in the enterprise of management, many were suspicious of the motives that underlay this new approach. One of the primary concerns

raised was that this new focus on participation was essentially an attempt by the government to divest itself of any responsibility to assist the individuals and communities in times of crisis. For most of its history, the Newfoundland fishery has been buffered by exogenous capital during poor seasons. In the early years, this was typically provided by the system of merchant capital and in the latter years, by the Canadian welfare state. While both of these systems have been justifiably criticized as being exploitative of rural livelihoods, both tended to provide enough security to allow harvesters to adjust to sudden changes by making the transition to new species or fishing areas and waiting for stocks or markets to rebound. Many interviewees were fearful that for the first time ever, they were being left to bear the full brunt of any future resource collapses. John, a fish harvester from Notre Dame Bay stated:

...they ask you for your opinion in some cases, but usually that is just to cover their own asses. That way if the fishery goes down again, they can say, 'Well, we asked you. We gave you a chance this time and it still went bad.' DFO refuses to be held accountable anymore. The second words that came out of John Crosbie's mouth after saying that we had to shut the fishery down were: 'We can't go laying blame.' He wasn't to blame, the scientists weren't to blame, the managers weren't to blame, the draggers weren't to blame, but it was gone. And there is still nobody to blame. This is no different. When it's gone, they'll say, it's not our fault, we consulted you.

In the minds of some harvesters, participatory management was primarily a legitimization exercise, designed to obtain the consent of fishers without surrendering any real power to make critical decisions. Many expressed doubts about whether their participation could possibly have a meaningful impact on fisheries management practices.

Some pointed out that, even when they were given an opportunity to voice their opinions about the state of the fishery or the direction they would like management to take, their knowledge was used very selectively and only in ways that did not fundamentally challenge the wisdom of senior Fisheries and Oceans Canada scientists and managers.

Dan stated:

...the government is always talking about community participation. It is the hot thing. But on the important stuff, there is no participation. They might ask you what you think, but they've got their minds made up before they even meet with you. I think a lot of decisions are made before the consultation starts and they just use whatever they want. So, if you've got fifty fishermen and forty-eight or forty-nine are against their plan, and only one or two are in favour of it, they can say that fishermen agreed with us. They are not telling a lie, but they're not telling the whole truth either. I've seen that a lot over the years...They want it to look like they are listening, but they know what they are going to do and they will just keep on consulting until they hear it. I give my opinion and you give yours and the next guy gives his, and they are going to pick the one sentence that most suits their agenda. Then they'll say: 'We had participation from these people. We included the industry stakeholders and the community was well represented and they have all been respected.' All of that rhetoric will be there...I always go and give my opinion in the hope that someday, they'll get it right. I don't know if I'm the eternal optimist or what, but I keep hoping that eventually somebody will start listening. The people we are dealing with now at DFO in the lower management are a fair group of people who are trying their best to make all this work. But the final decision comes from higher up. We make our recommendation to the lower management and they bring the information up, but somewhere along the line, it either gets changed or gets twisted, or somebody else comes into play with their opinion and it gets changed.

Dan exhibited a high degree of awareness and reflexivity about the way in which his knowledge had been decontextualized, recoded, and, in some cases, overtly manipulated by government research managers, often in the service of goals very different from his

own. While he appeared quite skeptical of the capacity of his participation to bring about changes that he supported, he continued to participate all the same, in the hope that this dialogue, however biased, might enable him to influence the process in a positive way. The tension that lies at the root of Dan's concerns was also identified by Wilson and McCay in their 1998 paper on participatory fisheries management. They argued:

Fisheries management is not just a policy process, it is a *science-based* policy process that relies on facts about the state of the fisheries that are not, in principle, subject to popular opinion. Participation cannot change the "facts" about the resource. The "facts" of fisheries science, however, are nearly always probabilities. Participation in management exists in constant dialogue with the extensive uncertainties of fisheries science...Those who define the scientific questions exercise a degree of both discursive and legal control over every aspect of management. The probabilistic nature of fisheries science allows considerable latitude in how this power is used...the official description of the resource is a cornerstone of bureaucratic power (Wilson and McCay 1998: 52)

Many fishers that I interviewed saw the continued elevation of federal government science to a position of epistemological privilege as highly problematic, particularly given that sweeping budget cuts during the 1990s had significantly reduced the presence of scientists and enforcement officers on the water and this severely limited their capacity to study and police the fishery effectively. Several harvesters also stressed the tremendous unpredictability of the marine environment and most pointed to instances of unexplainable booms and busts in the abundance of particular species that had taken place over the course of their fishing careers. A frequently cited example was the dramatic recovery of the lumpfish fishery in Placentia Bay in 2004, after most had given up hope

of the species ever coming back. Paul, a Placentia Bay harvester, recounted his shock at seeing their return:

There is just so much uncertainty. Nobody was expecting the lump fishery we got in 2004. We all figured it was pretty well fished out a long time ago. You see, the lump fishery is a very destructive fishery. You destroy all the females, and only sell the roe. We're after fishing it pretty heavily, and we really thought it was fished out. But in the back of my mind, I was remembering stories from fellas fishing offshore saying that they had been getting some lumpfish out there, so it must have been something to do with the temperature or something. My God, our lumpfish was as good or better this year than it ever was before. In 2003, I didn't put a big lot of effort into them, because they were so scarce and I was busy fishing crab. I finally got 1,800 pounds or something. Then, in 2004, I had 23,000 pounds, so that was a big difference. And that was true for just about everyone. There is nobody that could have predicted that. Everybody got a big surprise, the fishers, the scientists, everybody. It really makes you wonder. We might not have any fishery next year or we might have a great one.

Experiences like these had led many fishers to the view that marine ecosystems are highly complex and very difficult to predict and this made them very suspicious of the power of government scientists to manage fish stocks effectively. John, from Notre Dame Bay, expressed his reservations about ever being able to fully understand the behaviour of the marine environment:

There is an awful lot that they don't know, and an awful lot that we don't know. We know that it is all intertwined in some way, but when it comes down to the finer points of how much fish a whale eats and how much the different kinds of birds eat and how much we can catch. How much crab do the cod eat and how much do the seals eat? That's overwhelming, that is. That's doomed for failure from the start. We all know that we can't just look at one thing, but they don't know how to study the whole thing, and even if they did, they've got no money to study it anymore. Then again, they had all that money just to study cod and look what happened with that. I don't know whether if you had the whole budget of Canada and you had

thousands of scientists if you would ever figure it all out and understand all the interactions.

Similarly, Chris from Bonavista Bay stated:

There is so little knowledge of the ocean. They can put a man on the moon and they can send satellites everywhere, but they have no idea what is going on in the ocean. It is so complicated. How different fish interact and how a slight temperature change causes them to interact differently. Even just one degree can cause a lot of little changes and together they can have a big impact. You can do a study one year and find that it was a warm summer and there were lots of fish and seagulls. Then you could do the same study next year and it is a bit colder and not so many fish come in and neither do the birds and the whales and so on. And it can change quickly. I can take a scientist out one day and not be able to get enough to feed him for a week. And he will walk away with the impression that there is nothing there. But the following week, if I get a bit of sunshine and a bit of mixing of the water, and take him out again, he'd get the impression that there are tons of fish there. The problem is that they have no ways to work those variables into their models.

Most recognized that the inherent unpredictability of marine ecosystems often defied predictability, and feared that the new system would leave them highly exposed to ecological and economic fluctuations that may make it more difficult to earn a living in the industry in the future.⁶⁵

5.7 Independence and "Trust"

An even greater concern amongst the harvesters I interviewed was that more and more of them were entering into new kinds of economic agreements with crab processing companies and many feared that this trend could eventually undermine the independence of the fleet as a whole. In the aftermath of the cod moratorium, many processing plants moved quickly into the crab sector, buying from Newfoundland fishers and re-selling to

markets in the US and mainland Canada. While this trade resulted in a considerable profit for processing companies, its benefits to processing workers were very limited. The crab fishery was responsible for reviving a number of processing jobs in many rural areas, but the labour required to process this new species paled by comparison to what was needed in the 1970s and 80s, when the offshore fishery for cod and other species was at its peak (Clarke 2003). Whereas some plants focused on the labour-intensive process of removing shells and packaging crab meat, this strategy was soon abandoned (Connors 2003). The lucrative US and Canadian restaurant markets increasingly began to demand whole crabs or crab sections with the shells left on. This prompted most Newfoundland plants to scale back their processing operations considerably, resulting in a situation in which processing workers in some areas found it difficult to get enough hours of work to be able to qualify for seasonal Employment Insurance payments in the winter (Neis and Grzetic 2001). For the most part, crab are now simply cut into halves or sections, packaged and shipped to market with minimal processing. Those that are too dark in colour or have other visible defects are still processed into meat, but this work has been almost entirely outsourced to China, where labour costs are much lower (Kirby 2005). Those Newfoundland crab plants that were successful in retaining most of their year-round workforce did so by combining crab processing with the seasonal processing of one or more other species, such as mussels, scallops, lumpfish, monkfish, capelin, herring, mackerel or, in a few areas, cod (Herridge 2006d).

While the crab trade proved very lucrative for many processing companies across the province, the sudden conversion of so many groundfish plants into crab plants led to significant overcapacity in the processing sector. Whereas in 1995, there were only nineteen plants licensed to process crab in the province, by 2002, there were forty-four. A 2005 study by the Newfoundland and Labrador provincial government concluded that there is now enough processing capacity in Newfoundland and Labrador to handle four times the total volume of crab landed worldwide each year (Canadian Broadcasting Corporation 2007).

This overcapacity, in combination with the booming demand for snow crab in the United States, created fierce competition between processing companies and led to a bidding war for the crab that was available. Catches tended to be sold to the highest bidder, and crab was often trucked across the island for processing rather than being processed in the same town or bay in which it was landed (Clarke 2003). This situation prompted many processing companies to begin forming strategic alliances with each other as a way of keeping their costs down.

During the 1990s, the Newfoundland crab fishery was characterized by numerous disputes between harvesters and processors. Crab fishers went on strike three times between 1992 and 1997, accusing processors of failing to pay them fair market value for their catches (Canadian Press 1997). These allegations were confirmed in 2002, when investigators conducted a raid of several processing plants belonging to the largest crab buyers in Atlantic Canada, including: The Barry Group, Inc., Quinlan Brothers, Ltd.,

Daley Brothers, Ltd, and Grand Atlantic Seafoods, Inc. It was later found that these and other crab processors had been working as a “cartel” since as early as 1994 in an effort to ensure that they all received a secure supply of crab, while keeping the prices they paid fishers as low as possible (McIntosh 2002).

Another strategy employed by several processors was to form side deals or “trust agreements” with independent crab harvesters in the full time and supplementary crab fleets, in order to obtain exclusive access to their catches. In the aftermath of the charges of price fixing, this pattern became even more common, as processing companies were once again forced to compete with one another in order to get enough crab to satisfy their export markets. Trust agreements took a number of forms. In many cases, processors provided harvesters with the financing needed to upgrade to larger fibreglass boats, which were capable of travelling farther offshore to harvest crab and shrimp. These new boats tended to be very expensive to buy and costly to operate, however, and few independent fishers could afford to pay for them on their own. For the most part, fishers had been unable to secure bank loans for this purpose, because their fishing licences were not recognized as collateral. Thus, obtaining a loan from a processing company to put a down payment on a boat or to buy it outright was the only option available if they wanted to upgrade their fishing enterprises.

As prices for snow crab continued to rise during the 1990s, competition between processors intensified. Many of the fish harvesters I interviewed recounted instances in which harvesters in the full-time and supplementary fleets had been paid annual signing

bonuses of \$80,000 or more in cash, promised an extra dollar for each pound of crab sold or offered new Ford F150 pickup trucks in exchange for promising to sell their crab to a particular processor. Although processors were still forbidden from buying licences outright, trust agreements provided them with a means through which to gain control over crab licences through the back door and ensure themselves of a steady supply of crab.

Dan from Conception Bay explained that while the legality of these agreements was deemed questionable at first, court decisions were increasingly favouring processors:

There was a trust agreement that took place between a company and a fisherman that I know about. They never had all of the Is dotted and the Ts crossed legally, and the guy walked away with a pretty big down payment on a boat as well as the licence that the company thought they had secured. They took him to court, but the fisherman won. That happened twice that I know of. But since then, the processors have not made the same mistakes and, when cases have gone to court, the judges have ruled in favour of the company...Before they will give a fisherman money to make a down payment on a boat or buy him a licence or whatever, they will make him sign these agreements that the company drew up in advance with their lawyer. What the fishermen usually don't know is that if they default on the loan, the licence goes straight to the corporation. So, they have found a loop hole to get around the Owner-Operator Policy. DFO hasn't closed it yet, and I don't expect them to. The independent fishermen are lobbying to have it closed, but the boats that the companies own are lobbying and threatening the other way. Once the companies have control over enough enterprises, they can control the market again and pay whatever prices they want to. If the company owns 60 or 70 percent of the resource, they don't need the independent fisherman anymore. They can manage just fine with the guys they have on their payroll. If the companies get enough people that are dependent on them, then before you know it, the independent fishermen are going to be in the minority. Guess who rules the day then? The union can come up with whatever policy they like, but the company can just call all of the skippers that work for them and tell them how it is going to be. You do it this way and you vote this way or else.

Many of Dan's fears did come to pass in 2003, when many of the same crab buyers again joined forces and refused to pay market value for crab from any fishers who

had not entered into trust agreements with them. Most fishers interviewed believed that they made this decision because they had gotten into bidding wars with each other earlier in the season in their attempts to secure trust agreements with larger boats, prompting many to pay such high prices that they had trouble reselling the crab at a profit. Thus, they were trying to make up for this mistake by paying far lower prices to inshore fishers who had much less bargaining power. The standoff was eventually broken, when a number of smaller processors took advantage of the opportunity and began paying higher prices to independent fishers in order to secure their business.

Since inshore crab fishers tended to only have small quotas, it was far less common for them to have been approached directly by processors. Most of those interviewed did, however, see trust agreements as one of the greatest threats to the future of the independent inshore fishery, mainly because they allowed companies to dictate prices. Many fishers were also worried that the self-rationalization program they had agreed to as a condition for their entry into the crab fishery could ultimately lead to the full-scale corporate takeover of the inshore fishery. Chris, who fishes in Bonavista Bay, explained:

Now, with them allowing us to buy each other out and buddy up licences, the inshore fleet becomes more attractive to the processor, because now they can get two or maybe eventually three licences on the one boat. If you combine three 20,000 pound crab quotas on one vessel, you're looking at 60,000 pounds of crab, and they can make money on that. So, the small boats are becoming more and more appetizing to the processors. Once you get to three inshore licences aboard a single boat, Mr. Daley and Mr. Quinlan and Mr. Penney, and Mr. Barry are going to be really interested in buying in. What will happen is that one fisherman will start buying out

other fishermen, but the company will give them the money to do it. That way the fisherman still owns the licence on paper, but the processor owns it in practice. So what you will find is that if the fishery goes down, you will have big corporations owning all of the fish stocks around Newfoundland.

Dan, from Conception Bay, also made this argument, and he expressed his deep concern that the self-rationalization program was a slippery slope toward even greater corporate encroachment into the inshore fishery. He furthermore believed that this trend was not being resisted by fisheries managers, because it fit with their larger vision of transferring responsibility onto harvesters.⁶⁶

From DFO's point of view, it makes more sense to have the processors get everything passed to them. They have the boats, they have the quota, they hire the people, and when they decide that they want to use one 120 footer instead of four 65 footers, I get my pink slip and I have to go find another job. That way DFO can say to those processors: 'Here it is. You look after it. If you screw it up, that's your problem.'

From Dan's point of view, allowing the crab fishery to fall into the hands of a few large players fit seamlessly with the new policy focus of Fisheries and Oceans Canada, since privately funded corporations are better equipped to withstand dramatic swings in the abundance of particular species with little or no assistance from the state. When asked if he saw any indication that this trend would be reversed, he stated:

I don't really see any way around it. The government isn't doing much to try to stop it. It works better for the fish companies this way and it works better for the government because they don't have to regulate as much. It works better for just about everybody. The fisherman who sells out is satisfied, because he got his money. The problem is that, at the end of the day, you're going to have a few companies owning the whole resource. Sure, the fishermen don't want that to happen. Everybody is afraid of the companies owning everything and everyone and smaller communities

getting shut out for good, but the reason I don't see it changing is that I don't see a mechanism to change it. The companies are waiting to buy them up when they retire and, without enough young people coming up behind them who have core status and can afford to take over their enterprises, I think most are eventually going to sell out.

Such concerns were supported by a 2005 "Human Resources Sector Study" that was commissioned by the Canadian Council of Professional Fish Harvesters (Praxis Research and Consulting Inc. 2005). The study found that the continued viability of the inshore fleet on Canada's east coast was severely threatened by a variety of factors, including: increasing corporate encroachment; an aging labour force along with poor recruitment of young people into the industry; escalating license costs fuelled by private speculation; rising operating costs; and the failure of the federal government to take steps to keep the inshore fishery in the hands of small-scale independent harvesters.

Most participatory management models assume that each "stakeholder group" operates independently of all others. Many harvesters were, however, concerned that if processing companies were allowed to gain enough clout through these agreements, they would eventually be able to steer fisheries policies in a direction that would largely exclude the concerns of inshore fishers, processing plant workers, and other people living in coastal communities. Several said that some fishers were already facing external pressures that were influencing their publicly stated positions. They suggested that changing economic circumstances have created new bifurcations within the fishing industry, suggesting that the idea of a unified 'fishers' perspective' that can be expressed through participatory management bodies may be more myth than reality.

In the fishing seasons that occurred after these interviews were completed, many of the concerns of fishers seemed even more pertinent. At the close of the 2004 fishing season, when these interviews were carried out, the crab fishery was still performing strongly in many areas. Although there was some uncertainty about the overall health of stocks, prices paid to harvesters reached a historic high of over four dollars per pound in some areas that year, leading to continuing prosperity. Since that time, however, the state of the crab fishing and processing industry has taken a sudden and alarming turn for the worse.

Prior to the commencement of the 2005 season, the government of Newfoundland and Labrador took steps to alleviate the intense competition between processing companies for crab, arguing that the present situation denied them access to a secure supply of raw material and made it more difficult for them to satisfy market demand. In April of that year, then Provincial Fisheries Minister Trevor Taylor introduced a new system whereby each crab plant in the province would be allocated a fixed quota that they would be entitled to process each season, thereby eliminating the need for them to compete with one another (The Canadian Press 2005).

The policy outraged the FFAW, which presented it as a deliberate attempt to strip fish harvesters of their bargaining power in their negotiations with processors. On March 29th, 2005, 84 percent of the FFAW membership voted to go on strike once again, refusing to land any crab until the Provincial Government abolished the new approach (Canadian Broadcasting Corporation 2005i). This decision was followed by a series of

highly symbolic protests across the province. On a cold and rainy March 4th in 2005 close to 3000 fish harvesters gathered at the Confederation Building in St. John's to express their displeasure with the government. A CBC reporter noted that: "the fishermen hung crab pots that resemble enormous mesh lampshades from the flag poles and perched one on top the head of a statue of the explorer John Cabot" (Richer 2005). Later that day, a group of fishers filled the gallery of the Newfoundland House of Assembly and jeered the Minister of Fisheries, until the legislature was shut down for the day (Roberts 2005). The legislature was disrupted again nine times in the next two weeks, before the gallery was formally closed to the public. (Canadian Broadcasting Corporation 2005j). On April 6th, this tactic was extended to central Newfoundland, where more than 250 fish harvesters blocked the Trans-Canada Highway at Grand Falls (Canadian Broadcasting Corporation 2005e). The TCH is the only way to drive across the island and is the vital artery for commercial transport trucks travelling between the Nova Scotia ferry service in Port aux Basques, on the south-western tip of the island, and the much more heavily populated areas on the east coast. Thus, shutting it down at this central point for any length of time had the potential to be a significant blow to the provincial economy.

There were also repeated protests on the water. On April 13th, a flotilla of about 60 fishing boats blockaded the shipping lanes in Placentia Bay for two days. This brought an abrupt halt to oil tanker traffic to and from the oil refinery at Come By Chance and the oil transshipment facility at Whiffen Head and it also affected European freight destined for the port at Argentina. Fishers also surrounded the pilot boats that guide tankers in and

out of the bay. These actions were repeated again one week later (Canadian Press 2005c, Canadian Broadcasting Corporation 2005d).

Similar blockades targeted numerous other symbolically significant sites in the province. Between April 24th and April 28th, fishing boats repeatedly blocked vessels from entering St. John's Harbour. St. John's is the other major shipping port in the province, receiving freighters from the Canadian mainland, numerous supply vessels used by the offshore petroleum industry, and occasional visits by cruise ships and yachts (Canadian Broadcasting Corporation 2005c). Fishers present also made a point of surrounding a Portuguese fishing vessel in the harbour that had been twice cited for overfishing two years earlier, calling it a "citizens' arrest" (The Canadian Press 2005a). These events led to the passing of a temporary court injunction "that bans the FFAW and its members from interfering with the users, clients and employees of the Port of St. John's" (Canadian Broadcasting Corporation 2005l). Another blockade on April 26th targeted the community of Bay Bulls, the hub for the iceberg and whale watching tour boat industry on the east coast of the island (Canadian Press 2005e).⁶⁷

In many respects, the confrontational strategy pursued by the FFAW stands in stark contrast to the ideal of the "responsibilized" fish harvester that is increasingly being put forward in the "civil society" discourses present in most new ocean policy frameworks. Their actions imply that there is a fundamental antagonism or, in Marxian terms, class struggle between plant managers and independent harvesters which cannot be solved through dialogue alone and sometimes requires a show of force.

The standoff was eventually brought to an end when the provincial government agreed to establish an independent task force led by Richard Cashin, the former head of the FFAW, to author a report on the issue and develop a workable solution. Cashin's report ultimately concluded that the idea of processing plant quotas should be abandoned, but that the two groups should work together to broker an agreement that was satisfactory to both sides (Canadian Broadcasting Corporation 2005b; Canadian Press 2005).

While Cashin's compromise brought a temporary reprieve on the issue of plant quotas, the 2006 season would prove equally volatile, but for very different reasons. This more recent crisis was not caused by any single variable, but by a complete reversal of the unforeseen ecological and economic forces that had benefited the industry in previous years, leading FFAW president Earl McCurdy to describe it as a "perfect storm" (Canadian Broadcasting Corporation 2005k).

Prior to the 2006 season, Fisheries and Oceans Canada announced that it would be cutting the overall Newfoundland snow crab quota by 7 percent from the previous year. The bulk of this reduction would be concentrated in two fishing areas: 3K (on the northeast coast of the island, including Notre Dame Bay and White Bay) and 3PS (on the south coast of the island, including Placentia Bay and Fortune Bay). Both areas would sustain cuts of about 25 percent from the previous year (Canadian Broadcasting Corporation 2006h, Canadian Press 2006). Snow crab stocks have long been known to be "notoriously episodic in terms of abundance" (National Post 2002), but the worsening state of the resource in these areas may also be partly attributable to overfishing.

Some areas, such as 3K, have also been plagued in recent years by a very high incidence of “soft-shell crab.” Soft-shell crab “are defined by high water content and are commercially worthless” (Canadian Broadcasting Corporation 2005n). This condition “is formed during the molting process when a crab releases its old shell and begins growing a new one. The meat in soft-shell is noted for being mushy because the crab pumps itself full of seawater to aid growth” (ibid.). Soft-shell crab had mysteriously been showing up earlier in some areas over the last few seasons, leading to speculation that the health of the crab fishery might be in jeopardy. When interviewed in the fall of 2004, one fisheries manager explained the problem on the north coast of Newfoundland as follows:

Soft-shell crab was a very big issue last summer. Science doesn't even know what the problem is. The appearance from scientific data is that there is a high recruitment, so maybe they are just growing fast throughout the summer and that's why there are a lot of soft shells. Then again, soft shells can happen at any time of year. Usually we don't see it between April and say July, but since I've been here, we've seen it earlier and earlier every season. This year was the first time we had it all season. We simply don't have the answer about what the problem is. It could be overexploitation, but we can't say that for sure and because of the high levels of recruitment, we haven't done anything about the quotas yet.

This profound uncertainty underscores the dilemma highlighted by the new ecology (Wallace et al. 1996, Scarce 2000). Crab biology may be influenced by a range of factors, anatomical, environmental, and human-induced, and any effort to understand it must endeavour to consider the combined impact of all of these dynamics. This makes it extremely difficult to establish clear causal relationships.

Perhaps the greatest problem in the fishery in 2006 was economic, as the price paid for crab plunged to a fourteen year low of 92 cents per pound (Canadian Broadcasting Corporation 2006c, 2005d). That is less than half of the average price paid in 2004 and less than one quarter of the highest prices paid that year. There are a number of probable reasons for this dramatic fall in price. The first is the gradual recovery of stocks of Alaskan snow crab and of the more highly valued king crab. In 2006, Alaskan landings of snow crab alone more than doubled from 2005 (Welch 2006). The timing of this recovery could not have been worse from the perspective of Newfoundland fishers and processors, because it coincided with a meteoric rise in the value of the Canadian dollar relative to the US dollar, making it much harder for all Canadian seafood exports to compete in the American market.

Another factor affecting the industry was the highly publicized boycott of Canadian seafood products that was spearheaded by the American Humane Society in 2006 in order to pressure the Canadian government to abolish the annual harp seal hunt off Newfoundland, Labrador, and the Magdalene Islands. The campaign against the seal hunt has been ongoing since the 1970s, but was again thrust into the international media spotlight in 2006, spurred on by high profile visits to Canada from a host of celebrities, including Paul McCartney and his now former wife Heather Mills, Pamela Anderson, and longstanding seal hunt activist Brigitte Bardot. There is concern that, if the boycott continues to gain momentum, it could have a significant negative impact on the already low price being paid for crab caught in the province.

The recent difficulties faced by crab harvesters, processors, and exporters have been compounded by rising oil and gas prices, which have significantly increased the cost of travelling to and from fishing grounds and transporting seafood to market. These circumstances have created massive problems for vessel owners, many of whom carry significant debt loads (Clarke 2003). The head of the FFAW recently claimed that low crab prices, combined with a high demand for labourers in western Canada has prompted many Level I and Apprentice level harvesters to leave the province and has made it very difficult for some enterprise owners to even come up with a crew to go fishing.

The struggles between fishers and processors involved in the crab fishery highlight the often conflicting interests at play in the fishing industry. Fishers have argued that trust agreements and the recent move by the provincial government toward plant quotas threaten to undermine their bargaining power and leave them at the mercy of processing companies. These tensions are made even more acute by the immense scientific uncertainty that presently characterizes the crab fishery, raising serious questions about whether the fishery will remain prosperous in the future. This situation promises to have a major impact on the form taken by new participatory management mechanisms. Participatory management often demands that each industry speak with a single voice, but this requirement serves to marginalize the ongoing conflicts that often exist within each of these sectors.

The case of the fishery is made even more complex by the fact that crab processing workers themselves have interests that often diverge from those of both of the

aforementioned groups. The ecological, economic and political instability affecting the crab sector threatens many processing jobs and many plants have already undergone significant downsizing. Many of those who continue to be employed in the sector have had their hours cut back significantly, making it difficult for them to qualify for Employment Insurance (Neis and Grzetic 2001). In some cases, they have also faced downward pressure on their wages to compensate for the prices paid to fishers. Furthermore, Neis and other scholars have observed that snow crab processing workers often face a variety of negative health consequences, including serious respiratory problems (Fishery Research Group 1986; Neis 1995; Williams 1996; Neis and Grzetic 2001; Howse et al. 2006).

These situations have created new antagonisms between processing workers, their employers and fish harvesters, many of whom are their friends and family members. Since participatory management institutions tend to respect existing organizational hierarchies, however, it seems unlikely that processing workers and other politically marginalized groups in rural communities will be granted a distinct voice, independent of processing companies and fishers. The vulnerability of processing workers is even more apparent in the primary and secondary fish processing sectors, which I will turn to in the next chapter.

5.8 Chapter Summary

This chapter has described the restructuring of the Newfoundland inshore fishery in the aftermath of the cod moratorium and the new fisheries policy directions that have

taken shape over that same period. Whereas the cod fishery was managed in a top-down fashion, with scientists, managers and enforcement officers operating largely independently of inshore fishers, the crab fishery came to prominence just as harvesters were being asked to share greater responsibility for carrying out the science, monitoring, and policing associated with fisheries management.

In concert with these new responsibilities have been clear efforts to shift many of the risks associated with fisheries management decisions onto the harvesters themselves. In the case of the cod fishery, the NCARP, AGAP, and TAGS programs provided compensation and retraining in an attempt to soften the impact of the collapse. With the crab fishery, by contrast, deliberate attempts are being made by federal policy makers to ensure that this situation will never again repeat itself.

Harvesters had mixed reactions to these policy changes. While some people preferred this new approach, many expressed skepticism about the capacity of the federal government to manage resources sustainably, particularly in light of sweeping cuts to fisheries science in recent years. Several indicated that they were pleased that scientific assessments were allowing for greater openness to the use of fishers' knowledge in ecosystem assessments, but many feared that these consultations were primarily an effort to download responsibility for any future fishery collapses or accidents onto resource users. This theory will be put to the test if crab stocks across the island continue to show signs of extreme vulnerability. Additional concerns emerged from the growing reliance of

many harvesters on “trust agreements” with processing companies, which they felt threatened the future of the independent fishing fleet.

The next chapter examines the impact of recent fisheries restructuring processes on another segment of the industry, the primary and secondary fish processing operations in Placentia and Fortune Bays, on Newfoundland’s south coast. It argues that, while harvesters have been forced to take on new responsibilities through new participatory frameworks, fish processing workers have been largely excluded from this new approach, due in large part to the fact that most are framed as being connected to the ocean only in indirect ways.

Chapter 6 Global Forces and Local Problems: The Transformation of the Fish Processing Industry on Newfoundland's South Coast

Larger towns along the south coast of Newfoundland have historically served as major processing centres for the offshore fishery. Particularly significant have been communities located in Placentia and Fortune Bays, both of which are characterized by deep-water and strong currents which have kept them ice-free year-round and made them easily accessible to offshore draggers fishing on the Grand Banks (Wright 2001; Power 2005).

This chapter examines the attempts made by several offshore fishing and processing companies operating in these areas to adapt to the closure of the cod fishery and the new oceans governance regime that followed. It also discusses the changing experiences of workers in the processing sector and their ambiguous role in the new approach to ocean management that is being developed by the Canadian federal government. I conclude that the structure of new participatory institutions is such that fish processing workers are at serious risk of being excluded from the discussions that will shape the places in which they live in the future. The chapter focuses on two distinct models that were pursued after the moratorium by Placentia and Fortune Bay processing plants that previously serviced the offshore fishery: the primary fish processing operations pursued in towns like Marystown, Arnold's Cove, Harbour Breton and Fortune, and the secondary seafood processing operations pursued in the town of Burin.

6.1 The Fishing and Fish Processing Industry on Newfoundland's South Coast

The fishery pursued along the south coast of Newfoundland has always been quite distinct from that pursued elsewhere on the island. Fishing communities along the north and east coasts of Newfoundland have typically had to contend with severe winters and heavy concentrations of sea ice, which have made it impossible for most people to fish during the winter and during significant parts of the spring and fall. Accordingly, these areas have tended to be characterized by short and intense fishing seasons in the late spring, summer and early fall, when large schools of capelin and cod migrated into inshore waters and could be easily caught. Fishers on the west coast were more sheltered, but lacked easy access to the Grand Banks and tended to concentrate their fishing activities in the Gulf of St. Lawrence instead.

Fishing communities along the south coast had the advantage of relatively mild, albeit extremely windy and foggy, winters. Furthermore, the warmer water and ice-free conditions in Placentia and Fortune Bays extended the fishing season and increased the growth rate and abundance of several key species. This contributed to unusually bountiful harvests of cod, herring, and other species (Tulk 1997). While those closest to the headlands, particularly those living around the extremely biologically productive Cape St. Mary's area, have historically focused almost exclusively on cod, those farther inland and on the islands in the middle of the bay had begun to expand into fisheries for other species, like herring, salmon, capelin, and lobster by the 1870s.⁶⁸ Squid, mackerel and seals were also harvested when they were in abundance (Tulk 1997: 29).⁶⁹

Because of the very strong currents in Placentia Bay, it has never been regarded as a very good bay for fishing with cod traps. Instead, trawling for cod became a much more common practice. Trawl or "longline" fishing involves dragging a line with many baited hooks behind the vessel, rather than staying in one place and using just one hook. The first trawls began to be used in the bay by the 1860s and they continued to grow in popularity in the century that followed, due to the higher catches they brought (ibid: 28). Others continued to fish in small boats with conventional hook and line technology. By the 1960s and 1970s, however, most inshore fishers had come to rely heavily on the use of gillnets instead.

Due to their convenient location and considerable natural advantages, Placentia and Fortune Bays became preferred sites from which to prosecute the Newfoundland offshore banker fishery in the nineteenth century and the early part of the twentieth century. These advantages also contributed to the area being selected as a major processing centre for the offshore dragger and trawler fisheries after the Second World War (Tulk 1997; Wright 2001).

While the town of Burin, on the west side of Placentia Bay, had retained a prosperous banker fleet since at least the beginning of the nineteenth century, participation in the banker fishery expanded considerably after the 1880s. Increasingly, people living deeper in the bay began to travel to these larger fishing centres to work as labourers aboard large "Western" boats, which were capable of venturing into rougher waters farther offshore (Ibid.).

After the Second World War, this tradition of fishing offshore intensified. In 1946, the first Fishery Products Ltd. Plant was established at Burin and it soon introduced some of the first steam powered side trawlers to Newfoundland (Wright 2001). The number of offshore plants and trawlers operating out of the region would grow steadily in the three decades that followed and side trawlers would soon be replaced by much more powerful petroleum powered stern trawlers (ibid). The early 1970s also witnessed the arrival of large herring seiners in Placentia and Fortune Bays for the first time as well. Most of these vessels were owned by BC Packers, a large salmon canning company based in British Columbia which established a herring fishing operation based out of Harbour Breton (Wright 2001). Within a few short years, the once formidable herring stocks in the area had been almost completely exhausted. Some fishers complained that the federal government had done nothing to stop this trend (Interview data). One retired Placentia Bay fisherman that I interviewed explained:

This used to be a wonderful place for herring, but the big seiners came in and wiped it out. We saw the writing on the wall pretty early on. Those same boats had wiped out the herring stocks in Fortune Bay and in Labrador in the couple of years before that and now they were coming to destroy ours. The worst part about it was that probably only about one third of what they hauled up was kept and the rest was dumped over the side because they didn't have the capacity to process all of it. They were destroying the stocks and it wasn't even being processed! Some people went into St. John's and had a meeting with the federal department of fisheries in 1971 to complain about it. The government scientists told us we'd never live to see the day that the herring stocks in Placentia Bay would be depleted. If that were true, we would have had to have had very short lives, because three years after that they were gone. It had all been completely wiped out by 1974 and it hasn't been anything close to the same since.

The offshore fishery expanded considerably in the 1960s and 70s, although relatively little trawling was done within the bays themselves, as compared with other bays around the island.⁷⁰ The two bays soon emerged as the most important base for offshore fishing and fish processing on the island. By the end of the 1960s, Fisheries Products Ltd. was operating major multi-species trawler plants out of Burin, Marystown, and St. Lawrence on the western side of Placentia Bay. There were also large offshore plants operated by various other companies in Fortune Bay towns, such as Harbour Breton, Fortune, and Grand Bank, although all of these plants came under the ownership of the newly created Fishery Products International in the 1980s. Another plant operated by National Sea Products, Ltd. of Nova Scotia was established in Arnold's Cove, at the head of Placentia Bay, which produced both offshore fish and locally caught cod and herring.

Between the late 1970s and early 1980s, many of the already established fish processing centres along the south coast were chosen as the sites for the construction of new highly specialized processing plants, which depended primarily on cod and other groundfish landed by offshore trawlers and midshore draggers (Fishery Research Group 1986). This expansion was, however, curtailed somewhat by an unfavourable economic climate in the early 1980s, which pushed some processing companies to the brink of bankruptcy (Fishery Research Group 1986; Sinclair 1986; Power 2005). By the mid 1980s, however, both the newly created FPI and National Sea invested millions of dollars in highly specialized mechanical processing equipment designed to transform cod and

other groundfish species into value-added fillets as quickly and efficiently as possible. This marked a move away from the export of frozen blocks of cod to the United States, which had been the primary strategy pursued since the early 1950s (Neis and Williams 1987: 6).

In the mid 1980s a major study of the social impact of technological change in Newfoundland's "deepsea" processing plants was undertaken (Fishery Research Group 1986; Neis and Williams 1987). This research focused primarily on three offshore plants: the FPI plant in the town of Catalina (on the island's northeast coast); the National Sea Plant in the town of Burgeo (on the southwest coast); and the other major National Sea plant in Arnold's Cove (in Placentia Bay). All had undergone significant technological and managerial changes in order to adapt to the rapidly developing offshore trawler fishery. In all three cases, significant efforts had been made to make the plants more efficient, although not all of the same strategies had been implemented in all three cases. Among the changes identified by the researchers were: a growing focus on plant specialization, with each plant processing fewer species and less variation in size than they had in previous years; increasing job specialization, including a shift from group work stations to individual work stations; and a growing move toward highly sophisticated processing machinery, such as automated presorting and quality control systems, the use of "machine vision" to identify defects and to group fish by species and size, automated cutting and deboning machines, automated weighing systems to determine the maximum yield for each fish, and various kinds of electronic surveillance

systems for monitoring the performance of each individual worker (Fishery Research Group 1986; Neis and Williams 1987). They noted that, because of this new, more capital intensive approach, managers, union representatives, and workers were all anticipating job reductions in most plants.

Those jobs that continued to have to be done manually, such as the trimming away of bones and blemishes, would carry new pressures, as workers would be forced to move faster to keep up with the machines and would be exposed to new regimes of surveillance and new managerial approaches, such as performance incentive systems (ibid). These conditions, the report's authors argued, were already beginning to contribute to more repetitive strain injuries, higher stress levels among workers, and growing tensions between workers and managers in most plants (Fishery Research Group 1986; Neis and Williams 1987). A further danger they identify is that workers will become increasingly "de-skilled" as they begin to occupy positions that are "ancillary to the machines" and this will limit their power to demand better working conditions (Neis and Williams 1987: 39).⁷¹ They argued that workers would have to win the right to negotiate the rate and direction of technological change if the negative impacts on their quality of working life were to be kept to a minimum (Neis and Williams 1987: 4).

6.2 The Restructuring of the Primary Fish Processing Industry

The moratoria that were imposed on the harvesting of cod and other offshore species of groundfish, such as yellowtail flounder and American plaice, in the early 1990s had a severe impact on the fish processing industry throughout Atlantic Canada, and

nowhere was hit harder than the south coast of Newfoundland. Several plants in the region were closed down, including major plants in the communities of Galtois, Ramea, Trepassey, and Burgeo. Those that survived were forced to undertake a major restructuring of their operations in their efforts to adapt to a changing ecological reality. This typically included: making dramatic reductions in the size of their workforces, selling off many of their large fishing vessels to harvesting companies operating in less developed countries, and scaling back their harvesting activities (Power 2005: 189).

Atlantic Canada's two processing giants, Newfoundland's Fishery Products International (FPI) and Nova Scotia's National Sea Products, Ltd., chose to limit their involvement in the primary crab processing sector after the cod moratorium. FPI did, however, play a major role in distributing Newfoundland crab internationally and the company converted several of its plants on the island's north and west coasts to focus more intensively on shellfish. On the south coast, these companies pursued a very different strategy in response to the sudden shortage of cod and other groundfish. This is largely due to the fact that the area was home to several technologically sophisticated and specialized fish processing plants, which had been servicing offshore fleets but were suddenly left without a reliable supply of raw material.

With the onset of the moratorium, the two companies began to look overseas to satisfy their demand for fish. Some soon began buying frozen blocks of cod that had been caught by Russian and Norwegian trawlers fishing in the Barents Sea, home to what was, at the time at least, said to be the last relatively healthy wild Atlantic cod population in

the world.⁷² This subarctic sea is exposed to the North Atlantic drift, which carries the warm waters of the Gulf Stream northward and this moderating effect makes it a very productive fishing area for cod and other species (Wall 2006).

While the importation of Barents Sea cod initially proved to be an effective stop-gap measure, by the end of the decade it had become clear that the experiment was failing. Declining resources in the Barents Sea, a rising Canadian dollar, high energy prices, and strong competition for the same fish from a rapidly expanding Chinese processing sector caused the price of Barents Sea cod to more than double in a matter of only a couple of years and most of the Newfoundland plants quickly became unprofitable (Pitts 2006, Wall 2006).

A non-factor before the dawn of the 21st century, China has subsequently come to dominate the world's primary fish processing industry, accounting for about one third of global production (Kirby 2005, Lem 2006). The Chinese processing sector has expanded rapidly since 2002 on the strength of very generous loan conditions from the country's banks (Kirby 2005). China now has an overabundance of processing plants, most of which are primarily dependent on fish bought from the world market (*ibid.*). Whereas the Newfoundland primary processing sector has become highly capital intensive, most fish and shellfish that is shipped to China is processed by hand in large, gated factory complexes. Workers typically live in dormitories on site, working six day weeks about fifty weeks a year, often for as little as fifteen cents (Canadian) per hour (Kirby 2005). Although Chinese plants typically employ more than ten times the number of workers to

process the same amount of fish, labour costs are sufficiently low as to make them much more profitable than their rivals in Canada and elsewhere (Lem 2006, Pitts 2006).

In 2004, FPI decided to shut down its Barents Sea cod processing facility in the community of Harbour Breton in Newfoundland's Bay d'Espoir region. A year later, the closure was made permanent. This decision put about 350 people out of work, most of them in their fifties (Canadian Broadcasting Corporation 2006a). While the company cited the high cost of bringing the plant up to code as their main reason for its decision, many have speculated that it no longer deemed the processing of imported cod to be a profitable venture and simply wanted to rid itself of further responsibility to keep the plant operational (Callahan 2004). These accusations appeared to be substantiated shortly thereafter, when FPI stopped production at its last Barents Sea cod processing plant in Fortune on the west side of the Burin Peninsula. In the spring of 2006, the company indicated that it had no intention to reopen the plant and issued dismissal notices to another 345 people (Canadian Broadcasting Corporation 2006f).

A similar fate befell FPI's final groundfish plant in Marystown on the eastern side of the Burin Peninsula. Once the jewel in the FPI crown, the multi-species trawler plant in Marystown employed more than 1200 people in the early 1990s and was serviced by dozens of trawlers. This made it the undisputed economic anchor of the Burin Peninsula (Canadian Broadcasting Corporation 2006c).⁷³ In 1997, the company opted to transform the plant's operations to focus exclusively on yellowtail flounder, caught by a fleet of five of its own trawlers about two hundred kilometres from shore. FPI also formed a strategic

funding partnership with Fisheries and Oceans Canada in which the company would be responsible for carrying out research on yellowtail flounder which would then be transferred back to government scientists for analysis (Fisheries and Oceans Canada 2000: 11).⁷⁴ This reflects the broader trend toward devolving scientific responsibilities to the private sector that was described in the previous chapter.⁷⁵

While the plant's workforce was reduced to about six hundred and fifty people, it hoped to remain competitive on the strength of a newly purchased line of highly specialized machinery designed for processing flounder and other flatfish. Steven, a manager at the plant whom I interviewed in the winter of 2004 expressed concerns that even with these changes, the plant remained highly vulnerable to competition from processors in China:

All manufacturing is moving toward Asia like a shot out of a gun. You can't compete with a country that has the option of paying workers basically only what they need to eat. You just have to try to differentiate yourself. You have to emphasize that Canadian fish is clean and pristine and comes from fresh, clear water. It's all marketing. The marketing people in North America are really going to earn their money over the next five years if Canadian fish companies are going to survive. But that's not so easy anymore, because Chinese products are not what they used to be. Years ago, the quality just wasn't there, but now the quality is second to none and everything is done by hand, so there are no machines to service. For them, a breakdown only happens when somebody breaks their leg.

This sentiment was echoed by George, a union representative at the plant, whom I interviewed a short time later.

To get an idea of what we're competing against, we traveled to China to see how they do it. They use exclusively manual labour over there. The only machinery you see is the one that freezes the fillets. Other than that, it

is just lines and lines and lines of people. In China, they view machinery as expensive, but people are cheap. So they just hire hundreds of workers. When we got there, we couldn't believe what we saw. It was not what you would expect to see in a plant in a third world country. There were marble floors and everything was clean as a whistle. Their sanitation and hygiene was second to none. As a matter of fact, it was even stricter than it is in North America. The fact that China is a third world country still probably makes some people stay away, but if they could see it with their own eyes, we'd probably be in worse shape than we're in now.

Both men's concerns soon proved warranted. In the spring of 2006, FPI announced the Fortune and Marystown operations were losing the company about eleven million dollars per year (Fishery Products International, Ltd. 2006). It suggested that if the Marystown plant was to remain operational, a number of changes would have to be made. Namely, it called upon the government to introduce an early retirement program. At the time, the average age at the Marystown plant was fifty-nine. The company argued that removing the oldest workers from the industry would significantly reduce the number of people who would have to be laid off. Furthermore, it indicated that the union would have to make significant wage concessions as part of their new collective agreement.

The company also wanted the *FPI Act* changed or abolished (ibid.). The *Act* was created in 1987, when the company was first privatized. It was a requirement imposed by the provincial government, which had helped to create the company three years earlier out of the ashes of four debt-ridden processing companies operating in the province. The purpose of the *FPI Act* was to ensure that the company continued to act in the best interests of rural Newfoundland, containing provisions that required fish caught by the company to be processed in the province and ensured that its ownership did not become

concentrated in too few hands. After the emergence of China as a serious competitor, the company began arguing that this legislation put it at a severe competitive disadvantage and called for the right to sell some of its undersized flounder to China for processing, which it already had done without authorization a short time earlier (Fishery Products International, Ltd. 2006, Pitts 2006).

The company's demands were met with angry protests from the Fish Food and Allied Workers Union, as well as many of the workers at the Marystown and Fortune plants. In late March, workers occupied FPI's headquarters in St. John's and erected a Chinese flag as a statement about where the company's loyalties now seemed to lie (Canadian Broadcasting Corporation 2006e). The event touched off a bitter series of labour negotiations in which the company sought to obtain a wage concession of \$2.66 per hour as a precondition for bargaining. It also proposed to downsize the Marystown plant's workforce by more than 100 people and reduce the number of weeks of employment provided to those who remained. The union's unwillingness to agree to these conditions has led to a standoff which prevented the plant from operating between December 2005 and 2008 (Herridge 2006a, 2006c).

By 2004, the only industrial groundfish plant in Newfoundland that was continuing to try to compete directly with processors in China was the Icewater Seafoods Plant in Arnold's Cove at the head of Placentia Bay. The fact that it was the last remaining plant to pursue this seemingly unsustainable strategy is interesting, in light of the plant's unique history. For several decades, the plant was operated by National Sea

Products, Ltd., which is based in Lunenburg, Nova Scotia. In the early 1970s, it served as a year round herring processing facility, employing about 20 all male workers in the cleaning, pickling and bottling fish caught by BC Packers seiners for export to Scandinavian markets. In the summer, an additional 40 to 60 male and female seasonal workers would be hired on to fillet cod that had been collected from inshore fishing communities along the southeast coast. The fish was then sent on to a larger National Sea plant in St. John's for further processing (Fishery Research Group 1986).

In 1978 and 1979, the Arnold's Cove operation underwent a dramatic transformation. At that time, National Sea replaced the existing plant with a new highly mechanized plant that was capable of processing a wide variety of species, such as herring, mackerel, lumpfish, squid, capelin, flounder, sole, lobster, and scallops. The primary focus, however, would be on processing cod into varying sizes of fillets. By the early 1980s, the Arnold's Cove plant employed about 200 people, and this rose to more than 325 by the middle of the decade (Fishery Research Group 1986). Soon thereafter, employment rose to an all time high of over 500 people, as National Sea closed down its other large operations in St. John's and Burgeo and started processing all of its Newfoundland cod in Arnold's Cove (Fishery Research Group 1986; Sinclair 1986). The plant was serviced by three Nova Scotia-based trawlers during the winter, but also processed cod purchased from local harvesters during the summer and fall months (Fishery Research Group 1986: 440-441).

The new Arnold's Cove plant was designed to be a cutting edge processing facility, making use of a variety of high-end heading, cutting, skinning, sorting, and scanning machines made by companies such as Marel of Iceland and Baader of Germany (ibid: 464). Much like similar plants, the Arnold's Cove facility made use of a Taylorist approach, built upon quickly moving assembly lines that were equally dependent on both human and non-human elements (ibid: xii). The Arnold's Cove plant did, however, differ from other plants in a number of important respects.

The aforementioned Fishery Research Group study in the mid 1980s found that, unlike the other two plants they studied, the Arnold's Cove plant had not developed an individual worker incentive system and continued to allow for more collaboration between workers (Fishery Research Group 1986: 53).⁷⁶ The authors also found that, of the three, the Arnold's Cove plant had been most influenced by the so-called "Quality of Working Life" management approach, which among other things, suggested that workers should be given some power to make small decisions in the plant (ibid: 58). This, they suggest, is largely attributable to the fact that the manager in Arnold's Cove had developed a penchant for reading the biographies of successful business people and had been successful in promoting this alternative approach to his superiors at National Sea (ibid: 513). The authors of the study are, however, quick to point out that ultimate decision-making authority ultimately rested with management, noting:

...by giving workers some power over the small decisions and reducing levels of stress and hostility in the workplace, the Arnold's Cove management style obscures both the fact that management continues to control all of the important decisions

and the fact that the control that workers do exercise over the small decisions, is a gift from management that may well either disappear or assume a dramatically different form in the future (ibid: 54).

Even still, they did observe that this approach had contributed to generally better “working conditions” and “management-labour relations” than were present in most other plants they studied and concluded that this had contributed to “softer support” for the Fish, Food and Allied Workers Union (ibid: 54, 512).

After the moratorium was declared, the National Sea plant in Arnold’s Cove joined FPI plants in the region in deciding to process imported blocks of Barents Sea cod until the local fishery recovered. By 2001, however, with its profits slumping, National Sea announced its intention to sell the plant, citing its desire to divest itself of all of its primary processing interests and instead focus on secondary processing and marketing of its Highliner brand of frozen seafood and pasta entrees (Hilliard 2001, Government of Newfoundland and Labrador 2004). When it had still been unable to find a buyer by the end of 2003, it announced that it would seriously consider the possibility of shutting the plant down altogether (ibid.).

To prevent the plant from closing and protect the nearly 400 jobs it provided, an agreement was reached whereby it would be sold to Bruce Wareham, who had managed the plant for the entire thirty-five years that it had been owned by National Sea (Canadian Broadcasting Company 2004). He was a direct descendent of the Wareham merchant family⁷⁷ which had dominated the fish trade in Placentia Bay before the resettlement

program of the 1960s and had established and run the first processing operation in Arnold's Cove before National Sea took control.

The deal to keep the plant operating came with a number of stipulations, however, which were specified in a 2004 memorandum of understanding between National Sea, the Government of Newfoundland and Labrador and Wareham's newly created Icewater Seafoods Company. It was agreed that the provincial government would invest \$3.5 million dollars to purchase the fish quotas (cod, flounder and halibut) and vessel licenses that were associated with the plant and lease them to Icewater Seafoods for twenty years at a nominal cost in exchange for 35,000 Preference II shares in the company (Auditor General of Newfoundland and Labrador 2005). It was furthermore agreed that National Sea would have the first right to purchase fillets produced at the plant for use in their secondary processing operations in Lunenburg and that the company would agree to purchase all of its Canadian sourced raw materials from the Arnold's Cove plant.⁷⁸ National Sea did, however, also leave itself the flexibility to buy the majority of its fillets from China and other locations outside of Canada.

Wareham's willingness to keep the plant operational was also contingent upon workers voting in favour of a new collective agreement that would see them take a 35 cent per hour pay cut and a 50 percent decrease in their vacation pay and give up their pension plan, all of their health benefits, their clothing allowances, and all of their non-statutory holidays. Furthermore, the severance payments they would have received from

National Sea if the plant had closed down were instead incorporated into the sale price of the plant.

Upon taking over the plant, the new ownership invested 2.2 million dollars in a brand new line of Marel processing equipment, including an experimental automated bone removal system which was capable of plucking out the fish's pin bone, a process which had historically had to be carried out by hand. The new machinery was expected to accelerate the pace of production and expand the range of portion sizes the plant could produce, thereby making it more competitive internationally. It was furthermore hoped that Icewater could survive on much lower profit margins than could National Sea, since it is not a publicly traded company (Antle 2004).

While accepting that these reforms may have been necessary in order to save their jobs, many of the employees I spoke to complained about the new working environment.

Linda, who worked at the plant, described it as follows:

We had no choice but to take that deal. They had us over a barrel. But you can believe me, it's not much fun in there these days. They have to pay more and more for the fish so they are always putting more pressure on us to move faster and get better yields. We're always getting compared to China, but in China, they have thousands of people working in that one factory producing two hundred pounds of fish a day. We're expected to do twice that in an hour. The management mentions China all the time. It's all China, China, China. Everything they see on China in the paper gets cut out and put on the bulletin board, so that we can see what we're competing against. It's gotten to the point where everyone in there is hurting physically, especially the women. Most people are in their fifties and sixties now. It has always been tough work, but at least before we had chiropractic benefits. When I first started in the seventies, a woman on the trimming line was probably expected to trim eighty-five to ninety pounds an hour. The past few years, with the imported cod and the new machinery,

they have to do three to five hundred pounds an hour. They have to stand in that one position for eight hours a day and that arm is going constantly. Since the new machines went in people are just torn apart trying to keep up. Their arms, their necks, their shoulders, even their elbows and their fingers. And every break, they are coming around with their papers telling you: "well you trimmed this much in the last two hours, and your yield was such and such." And if it is not good enough, they'll tell you that in the next two hours you better bring it up...Those machines tell them everything about everybody. Every pound of fish that goes down the line is coming up on the computer in their office. They know who processed it and who is responsible for any problems. And if it's you, you can bet you'll hear about it. And the worst part is that you know there are so many people on the waiting list that would love to take your job in a second if you can't keep up. They may tell you they employ 400 people, but the reality is that half of them barely get any hours. So that pressure is always there.

Many of these complaints were foreseen two decades earlier by the Fishery Research Group study (Fishery Research Group 1986; Neis and Williams 1987). Some trimmers complained that the constant emphasis on getting higher yields was particularly troubling in light of the fact that the fish coming in from the Barents Sea tended to be "bloodier" than was the case in previous years and this forced them to cut away more of the flesh. Furthermore, many of those interviewed expressed dissatisfaction with the new machinery, arguing that the bone removal system was not working as well as had been anticipated and this was slowing down production significantly.

In a further effort to boost productivity, the plant has introduced a new system of team-based management in which workers are evaluated in groups and are encouraged to police one another's behaviour. The new management framework was strongly influenced by a Kansas-based consulting company called Career Track which offers a

variety of seminars on encouraging team-building and improving managerial effectiveness. Among other things, the company's web site promises that their seminars will: build loyalty and commitment; teach new ways of motivating and criticizing employees; teach ways of dealing with crying and other "overemotional responses;" "harness natural competitiveness as a positive, powerful force;" identify and overcome the "anti-management attitude;" and teach people to work effectively to meet deadlines under pressure (Fred Pryor Seminars and Career Track 2007). Workers have been required to go away sporadically for training days, where they have been put through a series of team-building exercises designed to teach them this new approach. Several of the workers I interviewed were less than impressed with these activities. Linda explained:

Those self-directed work teams work in the owner's mind and as long as he believes it and he's happy, then I guess that's all that matters. He got all kinds of government money for training us, but usually all we do is sit in the church basement and play with macaroni. They also gave us all yellow pieces of paper and asked us to fill out something about our personalities and stuff like that. The thing is run by some high priced consultant and we'd all have to go see him in our teams. The packing department would go for four hours, and then the trimming department would go. And we even got a certificate at the end of it. We all became certified professional macaroni bridge builders. *Laughs.*

The company has also recruited motivational speakers, including a retired National Hockey League player who showed the workers his Stanley Cup ring and stressed the importance of approaching their work with dedication and tenacity.

The emphasis on shared responsibility in the managerial approach of the plant has strong affinities with that underpinning the participatory management approach that is

being introduced through the new approach to ocean governance being pursued by the Canadian federal government. The Icewater Seafoods managerial strategy is not merely intended to control the company's workers. It is also intended to inspire them and to persuade them to internalize the goals of the company. While new forms of electronic surveillance are enabling processing companies to micromanage workers to a degree never before thought possible, efforts are clearly also being made to create new subjectivities amongst the workers. Despite the small profit margin of the plant, its managers saw fit to recruit professional consultants and implement team-based management in an attempt to motivate workers to feel as though they are a part of something larger than themselves and to inspire them to internalize the broader goals of the company. That way, it was argued, they would become more responsible employees and would be more inclined to hold their co-workers accountable for their performance.⁷⁹

These attempts to make workers see themselves as flexible, adaptable, accountable, and loyal subjects who identify personally with the goals of management is reminiscent of descriptions of similar managerial projects that have been provided by other anthropologists in recent years (Kondo 1990, Martin 1994, Wright 1994). Ironically, the idea that workers are part of a larger corporate team with shared interests and that their opinions matter stands in stark contrast to the harsh working conditions on the processing line, which most workers agreed had become progressively worse over time, and the growing sense of powerlessness that many plant workers expressed.

Despite the recent changes implemented by the company, serious questions remained about the capacity of the Icewater plant and other primary fish processing plants in the province to remain economically viable over the long haul. Icewater Seafoods was forced to lay off about 150 workers in January and February of 2005 and the company has publicly expressed concerns about its capacity to remain competitive under current economic conditions (Canadian Broadcasting Corporation 2005a). The irony of the situation is that the native cod population within Placentia Bay is widely believed to be the healthiest in Newfoundland. While the plant does operate its own trawler which has a small cod quota and it buys additional cod from harvesters across Newfoundland, this amounts to a small percentage of what is needed to keep the capital intensive operation running.⁸⁰

6.3 The Emergence of the Secondary Seafood Processing Industry

Perhaps the most successful adaptation to the cod moratorium was undergone by the FPI plant in Burin, Newfoundland, which was the first and only plant in the province to focus exclusively on secondary processing. Ironically, this decision did not come about through the enlightened vision of the company, but as a result of a long-standing labour dispute between Fishery Products Ltd. (the largest of the four companies that later became FPI) and the employees of the plant. Efforts by the company to close down the Burin plant in 1982 and transfer the fish it processed to its newer plant in nearby Marystown were met with large public protests and road blockades (Woodworth 1983).

Tensions persisted over the next two years as the company proceeded with integrating the operations of the two plants.

The conflict was finally resolved when Fishery Products, Ltd. agreed to build a new secondary processing facility in Burin to make use of the cod and other fish fillets that were being produced in Marystown and at other FPI trawler plants in Grand Bank, Fortune, Harbour Breton, Port Union, and Trepassey. The new plant was opened in 1987, just as the former crown corporation was being privatized (St-Jean 2002). Stan, a longstanding manager at the facility, explained the context in which the idea of secondary processing was initially conceived:

If you look back to the mid 80s, I think it is safe to say that everybody: the company, the government, and the scientists thought we were going to have all this cod at our doorstep and it was going to continue to grow. The question was: "What on earth are we going to do with all of the cod we are going to gain access to now that the 200 mile limit has been declared and we don't have to compete with the foreign fleets anymore? How and where are we going to sell it all?" Nobody had any idea of what was to come.

In the early years, the plant mainly produced products for the restaurant trade, particularly battered and breaded cod products, such as fish sticks and nuggets, breaded sole fillets and rolled and stuffed sole. While strong tariffs prevented them from competing in the US market, FPI intended to develop its business on the strength of markets within Canada and eventually capitalize on a growing demand in Japan. This focus would change significantly with the declaration of the groundfish moratorium and

the enactment of the North American Free Trade Agreement (NAFTA) in the 1980s, which made the US market accessible for the first time (McDougall 1988).

In the absence of locally sourced groundfish, the company began to turn to overseas sources for their raw materials. This trend continued over the course of the decade that followed and the plant is now almost entirely dependent on imported fish. In 2004 and 2005, their products typically consisted of some combination of pollock, flounder and crab from Alaska; haddock from the Faroe Islands, Denmark, and Poland; cod from Russia; aquacultured salmon from Chile; and aquacultured shrimp and scallops from various countries in Asia, Central and South America, most of which pass through China for primary processing en route to Burin. Only about 20 percent of the fish and shellfish they use is taken from Canadian waters (St.-Jean 2002).

While the plant is still active in the restaurant trade, the majority of their products have been sold through specific chains or product lines. At any given time, the 200 or so workers at the Burin plant may be found churning out a wide range of different frozen fish products on their two production lines. Most end up on grocery store shelves at major chains across Canada, the United States, and Europe under brand names such as Our Compliments, No Name, Smart Choice and President's Choice. The plant also produces all of the McDonald's Fillet-O-Fish patties consumed in Canada. Whereas in the late 1980s and early 1990s, they were made entirely from Newfoundland cod, since the moratorium, they have been made entirely from Alaskan Pollock.

One of the largest clients of the plant is pop singer Jimmy Buffett. Though most famous for wasting away in Margaritaville, Mr. Buffett has emerged as an influential player in the global seafood industry. His chains of Margaritaville Cafés and Cheeseburger in Paradise family restaurants have become fixtures south of the border. Buffett, who coincidentally has ancestral ties to the south coast of Newfoundland,⁸¹ now operates forty-two successful restaurants in nineteen states (Smith 2005). He has, furthermore, used his restaurants to launch a popular line of pre-packaged frozen seafood entrées, most of which are produced at the FPI plant in Burin. The products are sold at Costco stores throughout the US under the slogan “because man cannot live by cheeseburger alone” (Canadian Broadcasting Corporation 2006b).

On a snowy December day in 2004, I had the opportunity to tour the Burin plant just as a new batch of Buffet’s “Margaritaville Island Lime” shrimp was rolling down the line. I joked with my tour guide that the people who eventually ate them would probably never guess which island their shrimp actually came from. Unfortunately for the people of Burin, in December of 2006, Buffett released a statement declaring that he had opted to join a number of other celebrities in supporting the Humane Society of America’s boycott of all Canadian seafood products as a protest against the annual seal hunt. According to his web site, Buffett proudly serves as the chairman of the Save the Manatee Club of Florida and is now hoping to build upon that legacy by championing the rights of all marine mammals and other “creatures in the crosshairs” (Buffett 2006).

The irony is that the question of whether those island lime shrimp are in fact a Canadian seafood product at all is a matter of some debate. Most of the shrimp are raised in large-scale aquaculture operations in Thailand before being sent to factories in China for primary processing. They are then shipped on large Icelandic container ships to Newfoundland where they are battered, cooked, frozen and packaged and then trucked to the United States market. It has yet to be seen whether Buffett and company will eventually take advantage of this loophole to continue their association with Burin. Despite the challenges Mr. Buffet's stance will present for the Burin plant, its reliance on a diverse array of internationally sourced seafood products and export markets has made the plant quite resilient by the recent standards of the industry. Even still, the plant remains at the mercy of high transportation costs and is vulnerable to competition from other secondary processing plants around the world.

6.4 Epilogue

Since the completion of this research, the processing sector on the south coast of Newfoundland has experienced further turmoil. In 2006, the labour standoff between workers and managers at FPI's primary processing facilities continued, and the Harbour Breton, Fortune, and Marystown processing plants remained closed for the entire year. In December, FPI tabled a second offer that proposed a wage cut of \$2.00 per hour, along with severe benefits rollbacks, including concessions on overtime, statutory holidays, floating holidays, and vacations, but it was soundly rejected, with 98 percent of all voting FFAW members voting against it (Knott 2007).

Faced with growing financial instability and rising tensions with its workforce, Fishery Products International (FPI) began entertaining offers for the sale of its assets. In January, the first bid was made by Bill Barry, CEO of the Corner Brook-based processing giant The Barry Group. Barry had already purchased the Harbour Breton plant in November with a view to transforming it into a processing facility for redfish and now sought to take over the remainder of the company's assets, including its sizeable offshore quotas for a variety of species (Hunt 2006; Brautigam 2007; McArthur and Pitts 2007). Barry had expressed interest in FPI's assets seven months earlier, but had been rebuffed at the time (MacVicar 2007). In the month that followed, additional bids came in from several other companies.

While FPI's board of directors reached an agreement in principle to accept the Barry Group's offer, the sale was vetoed by the Government of Newfoundland and Labrador (McArthur and Pitts 2007). Any sale of the company's assets required the approval of the provincial government under the terms of the *FPI Act*, which was put into place when FPI was re-privatized in the 1980s (Brautigam 2007, MacVicar 2007). The provincial government deemed that the Barry Group offer would be less beneficial to the people of the province and ordered FPI to work out a deal instead with another company: Ocean Choice International (McArthur and Pitts 2007). Ocean Choice is owned by the Penney Group, which is itself owned by Newfoundland-based shipping and fish processing magnate Ches Penney. Despite protests from FPI's board of directors, who argued that it was inappropriate for the provincial government to meddle in the affairs of

private companies, they eventually complied and an agreement to sell most of FPI's assets and fishing quotas to Ocean Choice was reached on April 30, 2007. The only exceptions were the FPI secondary processing facilities in Burin, Newfoundland and Danvers, Massachusetts, which were instead sold to National Sea's High Liner Seafoods of Nova Scotia. The sale agreements also stipulated that all of the existing plants must remain operational and in their present locations for at least five years after the sale was finalized (Roberts 2007).

A month later, a tentative three year collective bargaining agreement was reached with FPI plant workers, pending completion of the sale. The agreement still involved a 46 cent per hour pay cut for workers, but this was far less than the \$2.66 cut originally offered by FPI (Herridge 2007a; Roberts 2007). While 61 percent voted in favour of the agreement, two plants voted against it, including workers at the Burin Secondary Processing facility, where 97 percent voted against the deal, refusing to accept any wage cuts. They also staged a brief wildcat strike to protest the sale of the plant to High Liner, fearing that their jobs could soon be deemed redundant (Herridge 2007a). This fear may be justified, since the Burin and Danvers FPI plants have long been in direct competition with the High Liner secondary processing plant in Lunenburg, Nova Scotia, and the possibility exists that deteriorating market conditions may eventually lead the company to close down the Burin plant.

6.5 Participatory Ocean Planning and the Plight of Fish Processing Workers

The problems faced by workers in the fish processing industry highlight the fact that the interests of fish processing workers need to be understood as being considerably different from those of their employers and those of fish harvesters. Whereas fishers prospered on the strength of high shellfish prices and the freedom to sell to the highest bidder, many processing workers found themselves in an increasingly precarious position, relying on fish shipped in from distant locales and having to compete with plants in China and elsewhere that are able to take advantage of much lower labour costs. This, in combination with the desires of their employers to remain profitable, puts severe downward pressure on the wages and benefits of these workers and, in some cases, has resulted in the complete loss of their livelihoods.

Primary fish processing workers, most of whom are women, appear ill-equipped to represent their interests in newly emerging participatory ocean management forums. Unlike plant managers, who have often been given a token seat at the table in such discussions, processing workers are generally seen as being only indirectly connected to the ocean and they are therefore not considered ocean stakeholders. This echoes the findings of Ottenheimer (1993), Porter (1993), Neis (1999a), Wright (2001) and Power (2005) that the sexual division of labour in Newfoundland has also often been viewed as a division between land and sea-based economic activities and this has contributed to an underrepresentation of women in decision-making forums. This alienation of processing workers from the sea that surrounds them is even more apparent in cases where plants are

relying on fish that does not even originate in Canadian waters. Thus, to the extent that the perspective of processing workers is to be considered under *Oceans Act* inspired management frameworks, it is likely to be represented by their employers, a scenario which masks the hierarchical nature of processing plants and presumes that a homogenous “industry perspective” is, in fact, possible.

At the time when this research was carried out, the position of secondary fish processors in Burin appeared to be more secure (Kirby 2005). China had not become a prominent player in this sector, and most of those interviewed indicated that their working conditions had not deteriorated over time. If the concerns of most workers at the plant are to be believed, however, their security may be severely threatened by the sale of the plant to High Liner. Regardless, workers at the plant will have little hope of participating directly in oceans management planning committees, since virtually all of their products make use of internationally sourced seafood, which is likely to be deemed to be outside of the Newfoundland ecosystem. Thus, although the majority of Newfoundland’s fish processing workers were raised in fishing communities and have worked in the seafood industry for their entire adult lives, they will be no more able to make a legitimate claim to the sea than any other residents of Canada.

6.6 Chapter Summary

While the emergence of the crab fishery lessened the blow of the cod moratorium for many fishers and seafood marketing companies, it has provided far fewer hours of employment for fish processing workers than was available in previous eras and has,

therefore, had a much less positive economic impact on their lives. As an alternative, some plants along Newfoundland's southeast coast have come to depend on internationally sourced fish in order to keep their operations going. This approach has proven to be immensely challenging, however, particularly in the face of rising competition from processing plants in China which have been able to operate much less expensively.

While Newfoundland's coastal towns have been at the mercy of distant market forces for hundreds of years, it is difficult to see the situation presently faced by processing plant workers as anything but new. Although most have lived their entire lives beside what were arguably the richest cold water fishing grounds in the world, their future would now appear to be more closely tied to currency markets, energy prices, and the success of the Humane Society boycott than to the health of the ocean at their doorstep. While some successes have been apparent in the secondary processing sector, it is only responsible for about two hundred jobs and questions remain about the capacity of rural Newfoundland plants to compete globally in the secondary processing sector in the years to come.

The immense uncertainty and conflict that have characterized the fish processing industry in recent years provide an important reminder that the concerns of workers are often quite different from those of their employers and those of fishers. Thus, allowing either of these groups to speak on their behalf in participatory management institutions has the effect of silencing them, and marginalizing many of the issues of greatest

importance to them. It remains to be seen how, if at all, the interests of fish processing workers will be incorporated into emerging participatory management institutions, but committees that have been created in Placentia Bay, Newfoundland and elsewhere suggest that a single plant manager or owner may be given the authority to speak as the official voice of the processing industry. The fact that many processing workers are now reliant on fish species that are imported from other parts of the world suggests that they will be even less likely to be able to make a legitimate claim to being an ocean “stakeholder.” Thus, processing workers, much like the non-core harvesters discussed in the previous chapter, appear to be in serious danger of being shut out of the new democratic institutions that will govern the regions in which they live in the years to come.

Chapter 7 Rules of Engagement: Reactions to Ocean Management in the Offshore Petroleum Industry

This chapter examines the ways in which the new policy regime brought about by the *Oceans Act* was received by senior managers and consultants working in the offshore petroleum industry. It explores the ongoing efforts of the Canadian Association of Petroleum Producers (CAPP) to lobby the federal government to implement policy reforms that would speed up regulatory approval processes and make Newfoundland a more attractive location in which to do business and then draws upon interview data and published materials in identifying the main concerns about new ocean policies that have been expressed by members of the petroleum industry. The final section describes some of the strategies that have been employed by CAPP and its member companies in an effort to engage with this new policy regime and to ensure that it takes shape in a way that is accommodating of their concerns. It also looks at the recent movement by some in the industry to embrace the discourse of “Corporate Social Responsibility” and examines some of the efforts they have made to promote themselves as socially and environmentally responsible corporate citizens who are committed to the concept of sustainable development.

7.1 The Offshore Petroleum Industry in Newfoundland

In 1965, oil exploration was initiated on the Grand Banks. For several decades prior to that point, offshore finds in other parts of the world had fuelled speculation that the Grand Banks might contain oil and, in anticipation of a new discovery, Premier Joey

Smallwood made a claim to all sub-sea resources on behalf of Newfoundland shortly after it entered confederation. In spite of the promising geology of the area, most companies stayed away in these early years, due in large measure to extremely rough water, inclement weather, dense fog, and the annual threat of collisions with large icebergs drifting southward from Greenland. The fact that there was an abundance of more easily accessible sites in other parts of the world diminished interest even further (Hamilton and Seyfrit 1994). Although some experimental drilling did take place and a few small deposits were found, none were deemed sufficiently large to develop at that time. As oil prices rose precipitously with the oil shocks of the 1970s, however, interest in the area grew and exploration activity began to increase (ibid.).

The first major oil find on the Grand Banks was discovered in 1979, when the Hibernia well was drilled about 320 kilometres east of St. John's (ibid.). Initial estimates forecasted that the field contained six hundred and sixty-six million recoverable barrels of oil, but subsequent estimates indicate that it may actually be 20 percent larger (Hamilton and Seyfrit 1994; Tutton 2005). The recognition that the Hibernia field was a very significant find, in combination with the subsequent discovery of the Terra Nova and White Rose fields in 1984, sparked tensions between the provincial and federal governments over who owned the resource (Slade 2003). A long and often bitter dispute between Prime Minister Pierre Trudeau and the new Newfoundland Premier Brian Peckford dragged on through the early 1980s (Thorne 1985).⁸² Although the Supreme Court of Canada eventually sided with the federal government, arguing that it was

entitled to the same rights as all other coastal states under international law, the province was successful in negotiating shared jurisdiction over the resource under a new “Atlantic Accord” (Slade 2003). This agreement was entrenched by the passing of the 1985 *Canada-Newfoundland Atlantic Accord Implementation Act* and the creation of a jointly managed Canada-Newfoundland Offshore Petroleum Board (C-NOPB), later renamed the Canada-Newfoundland and Labrador Offshore Petroleum Board (C-NLOPB), to oversee the industry (Davis 2001).⁸³ The board was, in turn, given the authority to establish new statutes and regulations to govern the various stages in the life-cycle of an offshore petroleum project, namely geophysical or “seismic” exploration, exploratory and delineation drilling, development, production, and decommissioning. The boards also have a range of additional responsibilities in the areas of environmental protection and health and safety and over the economic benefits derived to Newfoundland and Labrador from the industry (ibid.).

Fluctuating oil prices in the late 1980s stalled negotiations over whether to move forward with the Hibernia project, but an agreement was finally reached to develop the field in 1990 and it came into production in 1997 (Hamilton and Seyfrit 1994). This was followed by the commencement of production at the Terra Nova and White Rose fields in 2002 and 2005 respectively. All three fields are located in close proximity to each other in what is known as the Jean d’Arc Basin and, together, they typically produce about 350,000 barrels of oil per day (Harding and Cattaneo 2007). A fourth commercial discovery in the same area, named Hebron-Ben Nevis has also been identified, but

development of the field has been slowed by a bitter, long-running dispute over revenue distribution between the Government of Newfoundland and Labrador and the largest shareholders in the project, Chevron Resources and Exxon-Mobil (Cattaneo 2005; Brautigam 2006; Chase and Ebner 2006). An agreement between the two sides was finally reached in August of 2007, however, and construction is slated to begin on a new platform for the project in 2010 (Canadian Broadcasting Corporation 2007).

While many people in rural Newfoundland struggled in the aftermath of the cod moratorium, urban areas in and around St. John's boomed during the 1990s on the strength of the emerging petroleum industry. St. John's, which is located very close to Newfoundland's most easterly point, has always had a symbiotic, if unequal, relationship with rural areas of the province. With the decline of the migratory fishery in the early 1800s, merchants based there gradually began to play a more significant role in the coastal fishery, eventually taking over completely from those based in Europe. By the time Newfoundland received its independence in the 1830s, St. John's had emerged as the capital city and the undisputed commercial centre of the island, manufacturing clothing, household goods, and fishing gear for the domestic market (Wright 2001). The existing urban infrastructure in St. John's, along with its relative proximity to the offshore oil fields made it the logical choice as a supply centre for offshore oil projects (Jacques Whitford Consultants 2005). Accordingly, the commencement of oil production brought a significant injection of capital into the city. It has been estimated that, between 2001 and

2005 alone, the petroleum industry added about 1.6 billion dollars to the St. John's economy (Warson 2005).

The rise of the oil industry has also helped to spur on the development of a number of other maritime industries, particularly those focusing on ocean-related science and technology. Recent years have seen the emergence of extensive local expertise in a variety of marine and ocean technology fields, including: hydrographic services and seismic survey mapping, engineering for cold-ocean and ice-affected environments, vessel design, hydrodynamic research and testing, remote sensing, marine communications, the development of navigational aids, aquaculture development, and marine biotechnology.⁸⁴ Much of the expertise that has driven these industries has been developed in association with Memorial University of Newfoundland, particularly its Marine Institute and its Ocean Sciences Centre, and through the Institute for Ocean Technology of the National Research Council, which is also located on the Memorial campus (National Research Council 1998; Government of Newfoundland and Labrador 2002).

Together, these developments have brought sweeping changes to the capital. The downtown core is now dotted with new restaurants and boutiques, and weathered Victorian row houses have been gentrified and resold at much higher prices. On the outskirts of the city, big box stores and suburban sprawl are rapidly overtaking forests and wetlands. Housing starts skyrocketed, fuelled in part by people from economically depressed rural areas who are flooding into the city to find employment. The St. John's

metropolitan area has grown steadily over the last two decades and, as of January, 2006, it contained 181,584 people, about one third of the province's total of 514, 409 (Government of Canada, Department of Finance 2006).

The importance of the "new oceans economy" has been seized upon by the St. John's city council and used in a new marketing campaign. In 2004 the longstanding slogan "St. John's: City of Legends" was replaced with a new one: "St. John's: Centre of Ocean Excellence." The slogan was accompanied by a glitzy new promotional campaign, which sought to present the city as a world class ocean technology centre. Whereas the "City of Legends" brochures harkened back to a romantic past, emphasizing the "colourful history of fishing villages, pirates, sailors and soldiers," "traditional songs and dances," and the "friendly faces that wait to greet you," the "Centre of Ocean Excellence" campaign takes a very different approach. The new brochure describes St. John's as "an Atlantic hub for culture, promise and progress" and stresses the need to "use our strength and skill to harness the ocean to its full potential." The document's section headings reinforce this pro-development tone, employing such phrases as "Mastering the Sea," "Charting a Course for Success," "An Ocean of Opportunity" and "A Port of Potential" (City of St. John's 2004).

The challenge for the future will be in keeping oil revenues flowing (Harding 2006). All existing commercial fields are located relatively close to one another and, despite continued drilling, the Newfoundland offshore area has failed to yield any new commercially significant finds in the last two decades. While some oil reserves have been

discovered close to shore on the west coast of the island, and the coast of Labrador is known to contain significant deposits of natural gas, neither area has been brought into production. In the latter case, this is largely due to very difficult winter ice conditions, and the very high risk of collision with icebergs in the spring.

There is hope that new drilling programs in areas that had previously been avoided by companies because of difficult exploration conditions or jurisdictional disputes could yield new commercial discoveries, but this possibility remains unproven (Canadian Broadcasting Corporation 2005e). Heavy exploration activity is currently underway in the Orphan Basin, to the north of the Jean d'Arc Basin and in the Laurentian Channel, which lies between Newfoundland and Nova Scotia (Cattaneo 2004; Canadian Broadcasting Corporation 2005g; Stevenson 2006; Harding and Cattaneo 2007). While the proven oil reserves on the Grand Banks are expected to be exhausted over the next two or three decades, there is hope that newly emerging technologies will make it possible to drill for and produce oil in deeper and rougher water and could yield additional major finds (Baird 2006).

7.2 The Push for Regulatory Streamlining in the Offshore Petroleum Sector

In addition to the Atlantic Accord legislation, offshore petroleum companies that operate in Atlantic Canada are subject to a variety of additional laws, which require them to gain authorization from other federal and provincial departments. Since oil and gas projects invariably engage in some forms of "ocean dumping," approvals have to be sought through Environment Canada. Since they invariably destroy fish habitat, approvals

must also be obtained from Fisheries and Oceans Canada's Habitat Management Branch. If foreign workers are employed in any part of the project, further approvals are required from Human Resources Development Canada and the Canada Revenue Agency, and so on.

Many companies have long complained that the regulatory environment in Atlantic Canada is among the more cumbersome in the world, and that the slow pace at which the process moves is making the area significantly less competitive internationally and less capable of attracting new investment. These delays, it is often stressed, can be very costly; adding to what is already an expensive area in which to operate. Keith, a senior executive at the Hibernia Management and Development Company, which is now owned primarily by Exxon-Mobil, described the investment climate in offshore

Newfoundland as follows:

There is potential here without question, and obviously geological prospectivity is important. Leaving that aside, however, there are still a number of problems. This is still a relatively remote area of the world, so the local infrastructure is lacking. You don't have an active rig market or a supply vessel fleet just waiting to be tapped into like some other areas do. It all has to be brought in...It is also a very harsh environment in which to operate, so it is a very high cost environment, as opposed to somewhere like West Africa, where we're also very active. Our offshore environment here is such that you need to invest in big expensive projects in order to make any money, and you need big companies operating these big projects, because they are so high risk. You're not going to get your mom and pop operations investing in offshore Newfoundland. For a company as big as ours, however, it can be advantageous to invest here, because it has the potential for some very big prizes. It has lots of other advantages as well. It has security. It has political stability. It has a fairly well educated work force. You've got some skilled people here. And, the fiscal environment is fairly competitive...Considering that it is such a high risk and high cost

place to operate, however, it is very important that the fiscal terms reflect that.

Keith and several of his colleagues described Newfoundland as a “high risk, high reward” area for offshore petroleum exploration and development. In order to have any hope of finding oil, companies must invest in highly specialized equipment and be willing to drill multiple exploration wells. This can be an expensive and time consuming process. As a result, exploration in offshore waters has generally been restricted to large multinational companies, often working in consortia with one another. Thus far, the central players have included: Exxon-Mobil; Chevron; Conoco-Phillips; Royal Dutch/Shell; Norsk Hydro; along with Canadian-based companies Petro-Canada and Husky.

Since the late 1990s, the Canadian Association of Petroleum Producers (CAPP) and its member companies have been lobbying for policy reforms that would streamline the regulatory process and make it easier for projects to move ahead in a timely manner. The preference frequently articulated by CAPP is a “one window” approach, in which the C-NLOPB would serve as the liaison point between companies and other government agencies and could work to ensure that the seasonal business cycle of the industry does not encounter any extended or unnecessary delays. CAPP has also been a strong advocate for so-called “performance-based” or “smart” regulations, which are less prescriptive and allow for greater flexibility in their implementation. Companies have frequently made the argument that, since technologies and operations used in the industry change so quickly, it is important to have a regulatory framework that is capable of rapidly adapting to these

changes. Mark, a senior CAPP employee based in St. John's, described the move toward performance-based regulations as follows:

The push toward performance-based regulations seems to be gaining steam around the world, particularly in industries that are more capital and technology intensive. The nature of the technology and the high capital investment requires you to react within a relatively short time frame, and a heavily prescriptive environment really slows your progress. In a more flexible environment, you can undertake a lot more activity in a much shorter time frame. The more flexible you are with your regulations, the easier and quicker it tends to be to undertake your activity. Instead of saying 'thou shalt produce a well with such and such a rig' and then giving you a big checklist of things you need to do, smart regulations will just say: 'you will be permitted to drill a well, provided that you submit an appropriate drilling program.' That leaves it up to the operator to decide how they plan to drill and what they intend to drill with. Then the regulator either approves it or it doesn't. That can, however, present a challenge for the regulator, because they have got to be more in tune with business and the technology and understand what is being proposed to them...So you have to have smart regulators as well.

Smart regulations typically require a much closer working relationship between government and industry, and companies are often invited to play key roles in the monitoring and data collection processes associated with regulating their activities.

In 2002, CAPP's efforts started to bear fruit. That year, the federal government announced the convening of the Atlantic Energy Roundtable, which is comprised of "four federal and three provincial ministers together with support from senior representatives from the petroleum industry and government and regulatory bodies" (Erlandson and Associates 2003: 2). The Roundtable was given a mandate to "identify challenges facing the offshore petroleum industry and look for ways to improve regulatory efficiency and encourage increased investment and local involvement" (ibid: 2). These negotiations have,

in turn, given rise to a number of regulatory changes in the Newfoundland industry, including new, more “smart” or “performance-based” drilling, production and conservation regulations and a 2005 Memorandum of Understanding signed by several regulating agencies, which was designed to reduce the time needed by companies to obtain regulatory approvals.

7.3 Petroleum Industry Concerns about the Oceans Act

While many in the industry were pleased with the federal government’s openness to the idea of moving toward smart regulations, some were deeply unsettled about the *Oceans Act* and Canada’s Oceans Strategy and had serious concerns about how this new agenda was going to influence the regulatory process. Since the *Oceans Act* was intended to serve as an overarching piece of legislation, some worried that it could “destabilize” or even supersede the existing structure and undermine their push to develop a more streamlined approach (Luff 2002: 5). When I first met many of these individuals in 2001, suspicions were growing about what form the new oceans agenda would take and what impact it would have on existing and future operations. There was little sense of urgency at the time, however, since it was widely known that the Oceans Directorate in Ottawa had not received any new funding to move the agenda forward. While the proponents of the *Oceans Act* agenda in Ottawa at that time were taking pains to explain that it would not significantly interfere with the existing regulatory regime, many people in the industry remained unconvinced. When I met with several of these same people again two years later as part of my dissertation research, I sought to revisit the question of why this

new approach to managing the ocean had been seen as a threat and how, if at all, members of the local petroleum industry had attempted to engage with it in the intervening years.

In 2003 and 2004, I carried out a series of confidential interviews with senior members of CAPP, Exxon-Mobil, the Hibernia Management and Development Company, Petro-Canada, Husky Energy, the petroleum and fishing industry liaison group "One Ocean," and several independent petroleum industry consultants in an attempt to understand their concerns about the emerging federal ocean policy regime and understand the ways in which they were responding to it. All but one of these individuals were men, and most preferred that I meet them in their offices, most of which were located in downtown office buildings and featured large solid wood desks and panoramic views of the St. John's harbour. I was generally required to sign in with a receptionist, who was a woman in each case, and then wait for my prospective interviewee to greet me in the lobby. The individual would then escort me to his office, often pausing to punch in one or more security codes along the way. A few people suggested that we meet after work instead, generally in downtown restaurants, bars, or coffee shops where they felt free to speak more candidly. I also carried out participant observation at several petroleum industry-related workshops and conferences over this same period, usually at the invitation of one of my earlier contacts. The remainder of this section discusses the three main concerns people in the industry voiced about the policy shift ushered in by the *Oceans Act*. These are: 1) the possibility that it will create further regulatory delays; 2)

the possibility that it could lead to a downloading of additional costs onto private companies; and 3) the possibility that it could expose them to greater criticism from individuals and organizations who express hostility toward their industry.

7.3.1 Regulatory Delays

The largest single concern voiced by individuals working in the offshore petroleum industry was that such an ambitious new policy framework could add to the already slow process of gaining regulatory clearance to undertake exploration and development activities. Mark from CAPP explained:

We're certainly not against the *Oceans Act*. It's hard for anybody to argue with the concept of integrated management. But there are still a lot of sceptics in our membership who see this as an additional layer of bureaucracy where one isn't really needed. To this point, we've dealt mainly with the Petroleum Board in undertaking our activities and it has been working reasonably well. A lot of people believe that the areas where we undertake our activities are already well protected through the current regulatory regime that we work under. We're not shying away from regulation, but we certainly don't really think there need to be undue levels of regulation or duplication of effort by different agencies. With the *Oceans Act*, you're bringing in a whole new group that one has to deal with and many don't see how that can bring any real efficiency to the process.

These sentiments were echoed by Tony, who had been actively involved in developing and managing the Hibernia project.

I don't think we really see the *Oceans Act* as a big threat, but we will if it is implemented in a way that turns things upside down. Hopefully they won't go too far down that road. It is going to take a lot of hours and a lot of meetings and it's not exactly clear what the real benefit of it is. Right now, we're all doing our own thing and, so far, it kind of works. They may have all the best designs in the world, but if there is a lack of recognition about what is already out there, then you're going to end up with a lot of

redundancy and a lot of resentment. What you end up getting is an added burden, a less efficient process, more time, more consultations, more meetings, but not necessarily more effectiveness. Hopefully they will leave the regulations to the regulators and focus on those few critical issues that truly relate to the interfaces between industries. You know; if it ain't broke, don't fix it.

Another concern was that Fisheries and Oceans had provided very little clarity about how the idea of "the precautionary principle," expressed in the *Oceans Act* as "the precautionary approach," would be interpreted and applied in practice.⁸⁵ There was particular concern that sweeping cutbacks to federal ocean science budgets in recent years could make it impossible for environmental assessments to be performed in a timely manner and this could slow the process down considerably. This point was clearly articulated in a letter written by CAPP's Vice President of Stewardship and Public Affairs to the FOC Assistant Deputy Minister responsible for the *Oceans Act* in 2002:

Unreasonable expectation of the precautionary principle...could cause unnecessary delays and excessive costs for proposed offshore activities or developments. Because of the conflicting scientific data base available for managers to make decisions about the implications of offshore activities (in the context of determining effects at the ecosystem level) there is a risk that financial constraints within government could be used as a reason for not allowing an activity to proceed or for deferring a decision.

This argument suggests that the neoliberal restructuring of the federal government in the 1990s may have left it without the capacity to effectively assess whether or not a particular activity should be allowed to go ahead in a given location. Some worried that their activities could be prevented from going ahead without sufficient justification. A

similar argument was made about FOC's newly granted power to create marine protected areas. There was concern that the agency did not have the baseline science to effectively determine which "ecosystems" would be designated for protection. Thus, there was a risk that certain oil or natural gas development projects could be derailed by an MPA after companies had already invested considerable amounts of time, energy and resources in that area. CAPP has taken the position that, if land that had already been leased to a petroleum company is designated as the site for a marine protected area, the company in question should be compensated accordingly. Mark noted:

If a company spent millions in acquiring the licence and did some activity and all of a sudden, someone puts a MPA on top of it and we can't do work anymore, then somebody is going to have to compensate us, because the government gave us the right to have that licence.

Some petroleum company representatives said that the onus should be on the federal government to identify areas that they are considering for MPAs well ahead of time in order to save companies from having to go through the entire approval process only to learn that they could not carry out exploration or development activities in the area in question. One said that the federal government should invest resources into carrying out the baseline science needed to accelerate the process of designating MPAs, so that companies can operate in a "climate of certainty." When I presented this argument to an employee of FOC in St. John's, however, he laughed and replied that they could just as easily say that the industry should be forced to determine all of the areas in which they

could possibly wish to drill in the future, so the federal government would know which areas to focus their attention on.

7.3.2 Downloading

Another concern was that through their failure to supply adequate resources for the implementation of the *Oceans Act*, the federal government was forcing the private sector to bear an inordinate share of the costs associated with ocean management. At the time of interviewing, the injection of federal funding that accompanied the release of Canada's Oceans Action Plan had yet to be announced. Thus, all federal funding in support of the *Oceans Act* mandate was being diverted from existing Fisheries and Oceans Canada program budgets. Many of those interviewed felt that this signified a lack of commitment to making integrated management work on the part of the federal government. Instead they seemed content to rely on funding partnerships with non-government agencies in order to move this new agenda forward. Mark from CAPP explained:

What we're noticing in recent federal budgets is that there is not a lot of money being put into the *Oceans Act*. In the overarching DFO budget, it is a pittance compared to the other areas that are being funded. So, what does that really signal? Is the federal government really committed? Because if they are, they should fund it accordingly.

This sentiment was also expressed at a FOC-CAPP joint workshop on Canada's Oceans Strategy in 2003. The summary report that emerged from the workshop stated CAPP's concern that: "Public expectations being set about the importance of Canada's Oceans Strategy do not mesh with the resources being made available to deliver on those

expectations” and their belief that “...it will be difficult to convince non-government partners that they should bear costs of the implementation process, if the government has not placed a priority on it internally” (Fisheries and Oceans Canada and the Canadian Association of Petroleum Producers 2003: 13).

A further concern was that, since the petroleum industry is widely perceived as being extremely wealthy, they could be asked to pay a disproportionate share of the costs associated with integrated ocean management plans. Mark noted:

People look around the table and have a tendency to view us as the big industrialists with the deep pockets. We are often viewed that way, so we always have to overcome that type of stigma. We are often involved in discussions where people will say: ‘Well the oil and gas industry has deep pockets, so they should pay for that.’ We hear that quite often.

What those people failed to realize, he suggested, was that those people who work in the industry in St. John’s do not have unlimited budgets with which to work, and do not have the financial wherewithal or incentive to fund what most of them believed should be government-funded activities.

We certainly don’t anticipate picking up any of the funds for it. We anticipate being a part of the process of integrated management or whatever concept comes out of the Oceans Strategy, but we don’t see ourselves funding it in any way. It is a regulatory issue so it should be funded by the federal government. That’s why we pay taxes to them.

These and other interviewees stressed that, while they would prefer to see less prescriptive regulations in their industry, they believed that the federal government continued to have an important role to play in carrying out research

and in structuring the new participatory processes involved in the new ocean management.

Some interviewees were also concerned that Fisheries and Oceans Canada may not fully realize that representatives of the petroleum industry in St. John's are quite limited in their capacity to set regional policy for the companies they represent. They stressed that people in the St. John's offices are often beholden to the demands of their superiors in Calgary or Houston, who are, in turn, beholden to the demands of the market, their shareholders and various other national and international regulations or agreements. They stressed that local company offices are just one node in a much larger economic network and argued that it would be naïve of FOC employees if they failed to acknowledge the ways in which the industry is affected by extra-local forces that are beyond their capacity to control. If taken seriously, this argument would seemingly suggest that planning based on an ecosystem approach must not only consider vast and interconnected ecological networks, but also equally vast and interconnecting economic networks, some of which may span multiple countries or even continents (Castells 2000).

Several industry representatives pointed out that petroleum-related activities in Newfoundland are responsible for generating considerable tax revenues for the federal and provincial governments and it was therefore irresponsible and unfair for them to expect the industry to shoulder a substantial share of the costs associated with implementing new ocean policies as well. One Exxon-Mobil executive suggested that if stakeholder groups are going to be expected to pay costs associated with integrated

management, then it should be funded equally by all of these groups, to avoid the suggestion that the process is biased in favour of those who paid more. He pointed out, however, that this may not be possible, since even such things as paying for gas to attend meetings and taking time away from work could prove to be a major financial burden for representatives of less affluent groups.

For Bill, an industry consultant, the *Oceans Act* and other pieces of recent federal environmental legislation, were merely attempts on the part of federal officials to divest themselves of responsibility for environmental management and shift that burden onto the industry. He asserted that this trend was embodied by Canada's recent commitment to the "Polluter Pays Principle."

I think a big part of the problem is the concept of Polluter Pays. It just rolls off the tongue and environmental groups and politicians have picked right up on that. They say. You're doing something, so you're a polluter, so you should pay. You see how the logic jumps there? You're doing something, so, therefore, you're polluting? Whoa, wait a minute there! I'm in full compliance with all the laws, so I guess I'm not polluting, so why should I pay more. Every department says, they've adopted the Polluter Pays Principle, but what does that really mean? I think that means that the government doesn't have to do anything anymore. That means they can just wait until somebody comes along and raises an issue and then say, "Oh, that's his problem. He's the polluter, so he pays." I'm just going to sit here and coordinate and so on, but I'm not actually going to take any responsibility for anything.

Bill believed that this recent discursive shift was diverting attention away from the failure of the federal departments to live up to their responsibilities as regulators.

The fact of the matter is that if you wait until something happens, it's too late. You haven't done your job up front as a regulator. You haven't been proactive. These plans should have been in place at least ten years ago, if

not more. Everybody knew what the issues were coming out of the North Sea experience. Cuttings piles, drilling discharges, produced water. Everybody knew that. But was anything done about it to build a basis for understanding and competency to support regulatory decision-making? No. There was nothing to stop them from saying well in advance: 'OK, let's establish some ground rules and boundary rules for this kind of stuff.' They never do it. Instead, they want to shift everything onto us and wash their hands of it.

7.3.3 Vulnerability to "Radical" or "Extreme" Positions

The third major area of concern surrounded the question of what form the integrated management process would take and who would be invited to take part in it. Several were concerned that their industry would serve as an easy target for people who adopt what they called "radical" or "extreme" positions, such as certain NGOs who are opposed to oil and gas development on principle. Mark stated:

We don't seem to have a very active environmentalist community here. There are various pockets, but they don't seem to be as active or as organized in this province as we see elsewhere. It hasn't been much of a problem here, but we're expecting that it will be if we move forward in British Columbia, because they have a heavy environmental lobby there. Many people out there are interested in preventing industrial activity altogether. You have the Greenpeaces of the world playing a role there trying to prevent any progress whatsoever. There are all sorts of other groups, like the WWF, who have a vested interest and lobby for their wishes, but are willing to work with other stakeholders to develop plans. The WWF are a legitimate environmental group that want to protect the wildlife and habitat where we operate, but want to work out ways that allow others to work in that area. They are more willing to collaborate as long as certain provisions are accorded. Groups like Greenpeace, on the other hand, are completely against industrial activity and are more radical and more confrontational, so I don't know how you deal with groups like that. There is also a small group in Nova Scotia called "No Rigs 2000," I think. Not surprisingly, they want no rigs. They aren't really interested in having a discussion about integrated management or about scheduling activities at certain times of the year or anything like that.

Several of those interviewed said they had no interest in entering into any kind of process that was so open-ended as to allow groups who take such strong positions against their industry to play a prominent role. Several said they believed that the integrated management process should be restricted to “legitimate users” of the marine environment and not accessible to those who would seek to “politicize” or “moralize” the process. Instead, their preference was for a “highly focused” and “well-organized” dialogue, which focused on pragmatic issues and recognized the rights of industrial stakeholders to operate “sustainably” and “efficiently” in a given area. Some also feared that the stakeholder process could prove extremely time consuming and costly if it was not carefully structured. They worried that if the process was too open-ended, it could lead to protracted public debates, which could prove difficult to resolve. Thus, many stressed the importance of minimizing the number of stakeholder groups involved in the process and establishing clear mandates about what was and was not up for discussion. Ron, an Exxon-Mobil manager, observed: “It can’t be just a measure of participation in the process for its own sake. The processes themselves can’t be the endgame. Presumably they are there to serve another need.” He argued that consensus is not always easy to come by and when it does, it is often not the best policy, but simply the “lowest common denominator.”

A number of people made the case that responsibility should still fall on government to use the best available expertise to determine the best course of action for

the “society as a whole,” and not simply be beholden to the integrated management forum and “whichever group screams the loudest.” Colin, a senior employee who had worked with several companies explained:

Decisions about land and ocean use planning belong to the government, not the industry or anybody else for that matter. Sometimes hard decisions have to be made. Government has to be willing to say ‘we are going to favour the oil industry over the lobster industry in this particular area.’ But those are hard decisions to make and often they will not go near them. So, the worry is that you’ve got the industry moving along and it’s got all of its permits and approvals and it’s complying with all the laws, and suddenly people want to go back ten years and decide whether they want to do this or not. Aaargh! So all that happens is that the industry keeps doing its thing, the environmental groups get all hurt and upset and think the world is against them and the government just sits on its hands. In order to make those kinds of decisions, the feds and the provinces have to get together and say, OK, we’re going to make a decision for the collective good. We’re going to classify the coastline and we’re going to decide which areas things are going to happen in. Instead they usually just stay out of it and wait until something blows up.

Robert, a manager at the oil transshipment terminal in Placentia Bay, added that strong leadership from government would be particularly essential in navigating through the use conflicts that would inevitably emerge in that bay, as oil traffic increases in the coming years:

We provide a lot of economic benefit to the communities we work in and often that isn’t documented and it gets missed in some of these decisions. In a place like Placentia Bay, the trade-off is going to be: Is society better off having a refinery and a transshipment terminal at the head of the bay, a smelter in the middle of the bay and a shipyard on the other side of the bay or fishing activity in the bottom of the bay? Inevitably, some tradeoffs are going to have to be made. How do you decide what is best for the overall society? These are not going to be easy decisions and not everybody is always going to be happy about them, but they still have to be made.

Both men worried that FOC representatives seemed to be intent on clinging to vague rhetoric which suggested that it would be possible to “please all of the people all of the time” and seemed unwilling to speak openly about the need to favour some sectors over others in certain circumstances.

A related concern stemmed from the fact that in addition to being the lead agency for developing integrated ocean management, FOC is also the primary regulator of the fishing industry. Some expressed concern that this dual role could put the agency in a conflict of interest situation, or at least create that perception amongst people working in other sectors. Since the department had historically focused on fisheries some thought this might lead it to systematically prioritize the interests of renewable resource industries over those of non-renewable resource industries in integrated management settings. Accordingly several of those interviewed advocated a clearer distinction between FOC’s regulatory and facilitation functions. This concern has also been formally articulated by CAPP in its correspondence with FOC (Luff 2002: 5).

7.4 Strategies of Engagement and Disengagement

The response of the petroleum industry to the growing centrality of “sustainable development,” “ecosystem-based management” and “participatory” or “integrated” management discourses in Canadian oceans policy has been varied. On the one hand, the industry has entered into bilateral negotiations with Fisheries and Oceans Canada in an effort to ensure that the new oceans agenda unfolds in a way that is accommodating of their interests. At the same time, however, various players in the industry have sought to

develop their own approaches to interpreting and applying these discourses, which bypass government agencies altogether. This has included the development of a number of industry-sponsored initiatives, most of which have been designed to represent petroleum companies as responsible corporate citizens who are concerned about sustainable development, regardless of whether or not they are being pressured to be by government. This section discusses each of these approaches in turn.

7.4.1 Bilateral Negotiations

On September 23, 2002, representatives of the Oceans Directorate at FOC made a presentation to CAPP as part of its National Engagement Initiative. The goal of this initiative was to introduce Canada's Oceans Strategy and the Policy and Operational Framework for Integrated Management of Estuarine, Coastal and Marine Environments in Canada to key ocean user groups and solicit feedback. CAPP responded quickly with an eleven page letter. While the letter describes CAPP as "a strong supporter of stakeholder involvement in government decision-making processes," it also raised numerous questions about how this new policy framework will be implemented in practice and requested that a bilateral workshop be scheduled to address these concerns directly (Luff 2002: 2).

When asked about the rationale behind their reasons for asking for a bilateral forum, one Exxon-Mobil employee noted: "Well, there's input into the process and then there's *input into the process*. It's one thing to be invited to participate in a process that has already been developed, but it's another thing altogether to be involved in shaping the

way in which that process develops.” A similar point was made by Mark from CAPP, who stated:

There is certainly a willingness on the part of the industry to be a part of that dialogue. We share the space with others. We don't want to have a negative impact on their business or on the environment, so we need to have some type of plan where we can all undertake the activities that we need to without harming each other or the environment. So, our view is that there is that management/regulatory aspect needed and we're not shying away from it. Most of us see the importance of making sure that everyone works together in a cooperative manner and we think we have some things that we can bring to the table to help DFO to realize that goal...However, we also think that it is important that DFO recognizes that we have legitimate concerns around regulatory efficiency that have to be taken into account and I think they do...If the process becomes too cumbersome, there will be a tendency on the part of the industry to stay away and invest their time and energy in the regulatory process instead.

Interviews with members of the Oceans Directorate in Ottawa revealed that there was some disagreement within the agency about whether it was appropriate to engage in a bilateral dialogue with a prominent ocean stakeholder at such an early stage of the process, particularly considering that the idea behind Canada's Oceans Strategy was to give all affected interests an equal opportunity to participate. One individual within the Oceans Directorate expressed his reservations as follows:

Oil and gas is really pushing hard right now. They are the big kid on the block. They come to the table and bring a lot of weight at a variety of different levels: expertise, capacity, dollars, political influence, promised economic benefits. At the working level, we've tried to be sensitive to that, but my worry is that there may be some tendency to focus too much attention on the star industries. I am particularly concerned about the precedent we are setting by having a lot of bilateral relationships with the oil industry. Sure there are a lot of issues that we have to solve with them in the near term, but we've got to keep in mind that they've got to be part of the bigger process. If we solve their problems bilaterally, they are just

going to bugger off and not want to deal with us. Different people here have very different views on that.

In spite of these concerns, the first bilateral workshop between Fisheries and Oceans Canada and CAPP members went ahead in Halifax from April 14th to April 16th, 2003. FOC's presentation at the workshop characterized their new "transformative agenda" as having four interrelated goals, all of which were deemed to be compatible with the goals of the petroleum industry. These were:

- 1) moving from single species science to ecosystem and precautionary approaches;
- 2) moving from single sector approaches (e.g. fisheries, energy, marine transportation) to integrated management;
- 3) moving from centralized decision-making to transparent and participatory decision-making; and
- 4) moving from trading off environmental-economic goals to advancing sustainable development objectives

Fisheries and Oceans Canada representatives also stressed the critical need to "resolve user-conflicts" in order to "avoid creating barriers to economic activities" and "maximize wealth generation," provided that it is based on the principle of sustainable development.

The position taken by CAPP and its members at the workshop and in subsequent months raised a number of critical objectives of their own, which they wanted to see built into the new approach as it moved forward. One of the clearest messages articulated by CAPP was the need for national consistency. It was argued that the industry required a "transparent and seamless national policy and legislative framework to ensure consistency between regions" so that it could operate in a climate of relative certainty. As one CAPP official told me: "We just want to know the rules of the game." At the

workshop, it was pointed out that this call for national standards is at odds with the implementation strategy that had been employed by FOC up to that point which has been “to work regionally on projects, building knowledge, understanding and experience from practice.” Thus, CAPP’s challenge raises a fundamental tension between the “potentially competing requirements for regional flexibility and national consistency” (Fisheries and Oceans Canada and the Canadian Association of Petroleum Producers 2003: 6). The aforementioned letter written by CAPP to FOC described this concern as follows:

The absence of identified and accepted processes for the development and implementation of integrated management plans and the identification and designation of protected areas could lead to the development of *ad hoc* area-by area processes that could introduce considerable uncertainty into land access and tenure in offshore areas (Luff 2002: 7).

CAPP’s proposed solution to this problem was to develop a National Implementation Working Group to deal with issues that apply to multiple jurisdictions, while continuing to have smaller scale discussions to deal with problems that are solely of a regional nature. Otherwise, it has argued that both policy makers and industries will find themselves mired in a series of often conflicting “regional interpretations” of key ideas (ibid: 5). A related suggestion was for FOC to enter into a series of Memoranda of Understanding (MOUs) with other regulating agencies to ensure that all relevant federal agencies “buy in” to the oceans agenda and understand the need to have a consistent policy approach across multiple jurisdictions. If successful, this strategy would, of course, severely limit the power of regional interests to shape or curtail the activities of the petroleum industry.

While advocating national consistency in terms of policy implementation, many in the industry have also called for a high degree of flexibility in determining what kinds of activities should and should not be permitted in particular areas. Acknowledging that outright bans on some or all forms of industrial activity may be necessary in exceptionally sensitive habitats, CAPP officials have also argued that some activities can be carried out with minimal damage to the marine environment if they are performed in particular ways or at particular times of year. One CAPP employee I interviewed after the workshop had taken place pointed to one instance on the west coast of Newfoundland in which the industry had refrained from engaging in seismic testing at a time when a major migration of cod through the area was believed to be taking place. He added that this kind of strategic planning could, in many cases, enable the benefits of offshore petroleum resources to be harnessed, while significantly reducing the "ecological footprint" of the industry.

Some also pointed to the power of new technologies to reduce the negative impact of the industry in sensitive areas. One such example is the dramatic improvement that has occurred in the capacity of oil rigs to drill horizontally over large distances, thereby making it possible for them to extract oil and natural gas from underneath protected areas without technically carrying out any activity within their borders. As one CAPP official noted:

It is fine to prohibit activity in a park. When you look at the terrestrial parks, there is no hunting and no fishing. That makes sense. But you can undertake some oil and gas activities and not really have any impact on the

environment if you do it in such a way that it works. So why write "no oil and gas" into the legislation? You can certainly say that it is prohibited under certain circumstances, but at least talk to us about what those circumstances are going to be.

Once again, this approach suggests that oil and gas development can be a functional part of a healthy, and even representative, marine ecosystem. It is a clear response to more restrictive portrayals of what constitutes a healthy ecosystem, many of which would suggest that the presence of heavy industry in a given area means that it can no longer be considered healthy or pristine. The CAPP perspective appears more easily reconcilable with developments in the new ecology, which tend to portray ecosystems as constantly changing and inevitably defined and shaped by human values and actions. CAPP has consistently argued against blanket prohibitions against development, instead insisting that each area be considered on a case by case basis, even as they have argued for national consistency when implementing other aspects of the new approach. The organization has furthermore recommended that FOC should initially "focus on the integrated management planning component of the *Act*" and "defer decisions about MPAs until management plans for each region have been accepted" and use those planning forums to determine how best to protect the sensitive locations within those planning areas (Chircop and Marchand 2000: 14).

Many in the industry have also taken advantage of meetings with FOC to underscore the importance of imposing a high degree of procedural discipline on the integrated management planning process in order to ensure that the process moves

quickly and efficiently and is not open to those who take a confrontational stance toward industrial development. A presentation made by CAPP at the Halifax workshop stressed the “need to define a common purpose at the outset of planning processes so that all stakeholders understand the: nature of the end product, scope of the end product, content of the end product, and end use of the end product” (Canadian Association of Petroleum Producers 2003: 3). CAPP officials have furthermore recommended the importation of “professional guidance and discipline,” to ensure that this specific agenda remains at the forefront along with clear “terms of reference with clear descriptions of the roles and responsibilities of all participants,” “realistic timelines” and “quantifiable performance measures” to gauge results (Luff 2002: 3). From CAPP’s perspective, participatory planning should be pragmatic and not political in nature. It should be used as a means through which to develop more efficient mechanisms of coordinating interactions between industries and not as a public forum through which to express hostilities toward other ocean users or challenge their right to carry out particular activities in particular places.

Many of those interviewed also said they would prefer that access to planning bodies be restricted to those who are actively engaged in ocean industries or who have particular expertise so that the process does not grow to be too large and “cumbersome.”

Bill stated:

You have got to have processes that are long-term and inclusive without being cumbersome and unwieldy and self-congratulating. If inclusive means consulting everybody and their dog, that’s not inclusive, that’s an

election or a referendum. Inclusive means saying to everybody: “we need a bunch of people with the following specialties and they are going to be the ones we consult and move forward with, making that very public and very evident. And it is going to go on for a long time, saying, these are the possibilities we are considering and this is the one we’re favouring. And that is not necessarily to solicit endless letters from inarticulate riff raff like me. It is simply to say, this is the direction we’re going in. If there is a real issue with it, there will be a mobilization of special interest groups. You’ve got to be open enough to allow people to challenge you, but closed enough to be able to head towards your target.

Several people called for a system of “stakeholder weighting,” which would grant a greater say to those with a larger presence in the ocean.

While the influence of the petroleum industry’s demands remained unclear at the time of writing, the Assistant Deputy Minister responsible for oceans policy at FOC had agreed to maintain an ongoing dialogue with the leadership of CAPP in Calgary. To that end, several meetings between the two parties have been held in an effort to ensure that the new oceans agenda unfolded in a way that was responsive to the concerns of the industry.

7.4.2 Corporate Social Responsibility

Even as CAPP was working with FOC in an effort to influence the direction taken in the implementation of the *Oceans Act*, its members were also working through non-government channels in an effort to reposition themselves in response to the new policy discourses that it espouses. Their key strategy has been to identify themselves with the global “Corporate Social Responsibility” movement in an attempt to demonstrate that

they are committed to the principles of sustainable development and public participation, regardless of whether or not they are forced to do so by legislation.

In March of 2004, the “Oil and Gas Development Partnership” an industry-university collaboration based at Memorial University of Newfoundland facilitated a three-day workshop entitled “Sustainable Development: Getting it Right the First Time.” The goal of the event was to bring together a collection of representatives from petroleum companies operating in Newfoundland to discuss ways of incorporating “sustainable development principles” into their activities. The workshop, which was held in the boardroom of an expensive downtown hotel, also featured a series of distinguished guest speakers who had been flown in from around the world to discuss their experiences. I was given the opportunity to attend the event for free, along with several graduate students enrolled in Memorial’s Master of Oil and Gas Studies program, thereby avoiding the prohibitive two thousand dollar registration fee.

The opening speaker, representing the “Leadership Development Group” of Royal Dutch/Shell International, had been flown in from London for the morning to set the tone for the event. In what appeared to be a very well rehearsed power point presentation, he stressed the need for companies to embrace the concept of sustainable development as a central part of everything they do. This would mean moving away from simply “managing risk,” and instead committing to an entirely new philosophy of doing business in which they would seek to be “proactive” and concentrate on “managing their legacy” in the places where they work. He stated that governments around the world had

“dropped the ball,” by failing to invest sufficient resources in science and conservation initiatives, so the onus was falling upon the private sector to pick up the mantle of sustainable development and become more socially and environmentally responsible. They must transform themselves “from sinners to saviours” and create internal mechanisms through which to ensure that sustainable development principles make their way into the “hearts and minds” of all of their employees.

While some of those in attendance appeared skeptical, worrying that making these changes could have negative economic consequences, he took pains to point out that the model he was proposing should not be viewed as altruistic. To the contrary, he argued that they would prove to be sound business decisions that would benefit companies in the long run, as customers and shareholders would reward them by giving them their business. It would also make for smoother interactions with other industries and with the residents of the places where they work and this, in turn, would help to reduce conflict and improve their public image.

The fact that Royal Dutch/Shell International’s representative was such a sought after guest at a workshop of this nature is interesting, given that company’s unique history within the global “Corporate Social Responsibility” (CSR) movement. In 1995, Royal Dutch/Shell was faced with two public relations disasters. Its plan to sink an aging oil rig off Northern Europe had given rise to a growing international protest movement. Non-government agencies were characterizing the company as an environmental menace, more concerned with profits than with sustainability. A short time later, the Nigerian

government executed Ken Saro-Wiwa, an indigenous author and activist who had been the founder and public face of a campaign against the environmental atrocities committed by Royal Dutch/Shell and other petroleum companies operating in the Niger Delta region (Watts 2004). In the aftermath of Wiwa's execution, the company was widely accused of having failed to use its economic influence to pressure the Nigerian government to spare his life and this led to a very public boycott of Royal Dutch/Shell products around the world (Becker 2003).

These events and the backlash that followed prompted a sudden and dramatic shift in the policy direction of Royal Dutch/Shell. The company sought to rebrand itself as a model corporate citizen, attending major UN Conferences and lending its support to agencies such as Amnesty International, the World Wildlife Fund and Human Rights Watch. In 2003, it also became the first petroleum company to commit to refraining from drilling in areas designated as World Heritage Sites by UNESCO (ibid.). The company has subsequently taken advantage of every opportunity to promote itself as a responsible alternative to its competitors. It has invested in expensive advertising campaigns which demonstrate its commitment to protecting "fragile ecosystems" and "local communities" and its shareholder reports are now adorned with brightly coloured seashells and stories about how its sensitivity to social and environmental concerns has enabled it to be not only a enormously successful petrochemical conglomerate, but also a positive force for change in the world (Royal Dutch Petroleum Company 2003, 2004, 2005). These changes have done little to appease the company's critics, however. Wiwa's son Ken Wiwa Jr.,

who is now a columnist for the Canadian newspaper *The Globe and Mail*, once launched a lawsuit against Royal Dutch/Shell for its actions in Nigeria and has continued to speak out publicly against it. In a recent editorial, he proclaimed:

It is no exaggeration to say that my father's death gave birth to a new industry - Corporate Social Responsibility. The best I can say about CSR is that while I welcome the efforts to promote best practises and standards, business history tells us that corporations were only tempered by labour agitation followed by regulation. The notion that left to their own devices corporations will act as good corporate citizens is a laudable one but one that belies historical experience or the lack of public faith and trust in those institutions. Because while CSR was being trumpeted and propped up by an artifice of voluntary codes and offered as a sap to its critics, corporations were showing their true hand, working through GATT negotiations or trying to install the Multilateral Agreement on Investment (MAI) and subsequently through the undemocratic offices of the WTO (Wiwa 2004: 18).

Despite such criticisms, the CSR movement has gained significant momentum on the strength of the high profile conversions of Royal Dutch/Shell and many other multinational corporations. Members of the United Nations executive have been strong supporters of this trend. Representatives of several multinational corporations were invited to play prominent roles at the Rio Earth Summit, and they were influential in contributing to the more market-friendly discourse that emerged from it (Bernstein 2001). This spirit of partnership with the private sector was further entrenched in 1999 when former UN Secretary General Kofi Annan created the *United Nations Global Compact*. The Compact invites companies to publicly commit to nine non-binding principles, covering three key areas: human rights, labour, and the environment. The agency has made it clear that this is not a "regulatory instrument," but rather a non-binding code of

practice that promotes “public accountability, transparency, and the enlightened self-interest of companies, labour and civil society” in order to achieve “a more sustainable and inclusive global economy” (United Nations 1999).

Over the last decade, many more multi-national companies have announced their commitment to “sustainable development” principles. Some have taken steps to modify their business operations in an effort to: reduce negative environmental impacts, create ‘eco-efficiencies,’ or increase ‘transparency’ and ‘public participation.’ Some have made sustainability oriented projects a key focus of their corporate sponsorship strategies and have contributed money to community development programs or protected areas in countries where they operate. In recent years, a number of product certification councils, self-labeling programs, and codes of industry “best practices” have come into being as well. By committing to these programs, companies may be able to gain entry into more exclusive markets and charge higher prices (Neale 1997).⁸⁶ Some have sought to be listed on the Dow Jones Sustainability Index, which includes major companies that satisfy certain designation criteria. Most of these changes have been actively promoted to shareholders and used in marketing campaigns in the hope that doing so will attract capital investment and increase brand loyalty. It is hoped that new ‘sustainable development’ friendly strategies will prove to be profitable, as new revenues will more than offset the cost of modifying practices (Holliday et al. 2002).

While the message that the goals of sustainable development and profitability can be reconciled was often repeated at the St. John’s workshop, several of those petroleum

industry employees in attendance told me privately that they remained skeptical. While most said that they supported the idea of trying to be more responsible, many were not convinced that doing so would lead to higher profits. One man told me that he thought that there would always be some companies who would take shortcuts and he suspected that they would continue to be rewarded with substantial profits for doing so. This idea shares some commonalities with the Tragedy of the Commons thesis (Scott Gordon 1954; Hardin 1968), in that it implies that individual companies cannot be trusted to do the right thing on their own and emphasizes that regulation and enforcement are necessary elements in bringing about responsible behaviour. Another man who was present at the workshop claimed that he had little faith that the numbers of people who would be attracted to "ethical investments" could ever outweigh the many others who are simply looking for the highest return on their investment, regardless of whether or not the companies they were investing in were "doing the right thing." He thought that educating consumers and investors could only go so far and the real challenge would be in educating financial analysts so that they will steer their clients to make long-term investments in "sustainable companies."

One of the petroleum industry representatives in attendance at the workshop said that she thought it was unfair to focus all of the attention on the polluting activities of the oil industry, when other industries were not being targeted as intensively, noting:

This is all well and good, but I think that fishers and other stakeholders need to become corporately responsible too...Fishers can throw their garbage over the side of their boat and nobody cares, but if we do the

slightest thing wrong, they are all over us...There seems to be a real double standard. We're happy to do our part, but it has to be a two way street.

Bill shared this cynicism, believing that the petroleum companies are often unfairly portrayed as being irresponsible by the general public, whereas others are often given an easier time. He did, however, accept that committing to the rhetoric of CSR was important and necessary, even if it wasn't always genuine:

In my view, the big oil companies represent a new bourgeoisie or aristocracy. I believe that all societies tend to drive toward an aristocracy, whether it's the Louis the 14th type of aristocracy or it's the Enron, Exxon-Mobil type. One universal is that none of them like to be embarrassed in public. The environmental groups understand that, the pressure groups understand that, and the politicians understand that. It's not that they can really do much to hurt the big players, but it just pisses in their cornflakes and ruins their day and it does nasty things to their share prices when the casino that is the stock market reacts openly to that...Ecologically, it doesn't matter if we kill three thousand fish today, but nobody will understand that, except maybe some scientists at DFO. The fact is that regulations are made at a particular point in time with a certain set of concepts that are informed by certain political pressures. Those pressures most often have nothing to do with anything scientific and everything to do with either punishing somebody or controlling something or just fluffing up one's tail feathers...So those are the pushes and pulls. That doesn't mean that companies aren't sincere. I guess half of it is sincere and the other half is, in leftist terms, crass reality. That means it makes you act a little bit less like a pure tyrant or a robber baron and be a bit more like: 'OK, yeah, I can see how I can get to where I want to go and you can get what you want if we do things a bit differently.' It's a negotiation and we understand negotiations. We do that every day, either with our friends or with our enemies. That's what it all comes down to.

In this quote, Bill is once again drawing upon arguments from the new ecology in making his claim that the industry's activities are largely compatible with most ecological processes, even if they do have some impact. In his view, CSR is ultimately a strategy

through which to accommodate or undercut attacks on the industry by groups of people who subscribe to a highly politicized vision of what is and is not ecologically harmful.

Some others made the case that there have already been significant steps taken toward "sustainable development" by the local industry. Thus, the phrase "Getting it Right the First Time" seemed far-fetched, particularly given that the industry had been producing oil for nearly a decade and had been engaging in dialogue with fishery workers and other affected interests in the province since the 1980s. The discourse of "good corporate citizenship" has been present in the industry since the 1980s, when planning of the Hibernia project began (Ottenheimer 1993).

This was particularly apparent during the building the Hibernia platform, which took place in Bull Arm, at the head of Trinity Bay. Mobil Oil, which was the lead investor in the project carried out extensive consultations with people living in the area and introduced a number of new programs in an effort to improve relations with surrounding towns and minimize the extent to which the fishing and oil industries were disruptive to one another's operations. One former Mobil employee who played a key role in negotiating with local people explained the early interactions between the industry and fishers operating in the Bull Arm area:

They knew big vessels were going to be coming into Trinity Bay and lots of activity was going to be taking place. Up until then the fishermen had the place entirely to themselves and many of them were using small boats, so they felt threatened. They didn't have any navigation training or systems or aids and they had no communication. They didn't even put radar reflectors on their lines. So, they thought they'd be run down. We thought, unless you do something, you might be. So we set up traffic lanes

and we issued them all radios, but we insisted they take training to learn how to use them...We also provided radar reflectors for their gear and, with the help of local fishermen, we set up a program for environmental effects monitoring so we could track the quality of the marine environment. To be honest, the fishermen in the area seemed more worried about losing their livelihood, but we thought that they should also know that we weren't hurting the environment and the quality of the fish that they were making a livelihood from.

Others have painted a less positive image of the interactions between the petroleum industry and fishing industry during this period. In her Master's thesis *Fish and Oil Don't Mix: Power Relations at the Bull Arm Construction Site, Trinity Bay, Newfoundland*, Ottenheimer (1993) criticized the oil industry for: "excluding fishers' grievances from the agenda, the inadequate representation of fishers' intrinsic interests and the elimination of women's issues from the negotiation process" (ibid: 9). She furthermore notes that members of the petroleum industry opted to negotiate contracts with individual fishers who were actively using the area rather than dealing with them as a group and they failed to compensate processing plant workers, whose livelihoods were also affected by their presence (ibid: 129).

Working a decade earlier, several authors had noted, that, while there may be the potential for a mutually beneficial relationship between Newfoundland citizens and oil companies, there are certain tensions implicit in this relationship (House 1985a, Hynd 1986, Overton 1986). House (1985a) argued that, since oil companies operating in Newfoundland are controlled from head offices based elsewhere, it is likely that they will leave when it no longer becomes as profitable for them to operate there or when better

opportunities present themselves elsewhere. Thus, the economic boom had the potential to end abruptly, with few lasting benefits. He pointed out that some oil companies were already bristling at the provincial government's insistence that they hire Newfoundlanders for particular jobs, when there were more qualified people available (ibid: 133). He also noted that with most infrastructure targeted for St. John's, the direct benefits to rural Newfoundland would be limited (House 1985b). A related argument was that rural areas might be further disadvantaged by conflicts over ocean space that were likely to emerge between the oil industry and the fishery (House 1985a).

Despite these lingering issues, petroleum companies in Canada have continued to try to present themselves as responsible corporate actors. Perhaps the most obvious example of this trend in recent years has been the CAPP Stewardship Initiative, which was first unveiled in 1999. It was developed through CAPP's main office in Calgary with assistance from the Macleod Institute, "an independent third party affiliated with the University of Calgary" (CAPP 2002a: 2). According to the CAPP publications, "stewardship is a responsible approach to business that lets companies succeed while protecting the natural environment and enhancing the quality of life" (CAPP 2002b: 9). The program requires CAPP members to commit to seven core "Stewardship principles:"

- 1) Place a high corporate priority on Stewardship and integrate it into operations and business planning;
- 2) Acknowledge and respond to public concerns when examining risk.
- 3) Establish effective communication and reporting with internal and external stakeholders;
- 4) Establish objectives and targets to measure performance and continuously seek opportunities to improve;

- 5) Support applied, peer-reviewed research that increases our knowledge, assists decision-making and develops solutions to industry environment, health, safety and socio-economic issues;
- 6) Pursue proactive strategies and support the implementation of sound management systems; and
- 7) Promote the understanding of sustainable development and the efficient and wise use of resources.

The CAPP Stewardship Initiative was initially voluntary, but has subsequently been made mandatory for all of the organization's members (CAPP 2002b: 10).

Companies are, however, given the opportunity to choose from four levels of commitment to the aforementioned principles, for which they are assigned a corresponding "recognition level." These range from a bronze level, for which companies must simply sign a declaration saying that they endorse CAPP Stewardship principles and meet basic planning and reporting requirements, all the way up to a platinum level in which "companies routinely submit to external audits..." (CAPP 2002b: 10). When asked about the reasoning behind the development of the program, Mark explained:

It was brought in for a number of reasons. The petroleum industry was and is doing a lot to protect the environment and to protect the health and safety of its workforce, but a lot of people were not understanding everything that we were doing to be good stewards. So, we wanted to set up a program which would help those within and outside of the industry to get a better sense of what the industry is actually doing. Also, we wanted to generate statistics on a number of environmental and health and safety fronts so that we can benchmark good performance versus bad. We can also benchmark different nations against each other, and we can look at trends over time to determine whether companies are improving their performance over time. That way we can document who is being a good steward and who isn't and motivate a sense that all members should be good, conscious environmental health and safety stewards.

He also conceded that the program created new opportunities to lobby the federal and provincial governments for improvements to the current regulatory regime, since it would show that they were already engaging in self-management:

If we can do that and demonstrate that we are attentive to environmental and health and safety issues, then people in government might be more amenable to having more discussions about developing more performance-based regulations.

CAPP and its member companies have also engaged in various philanthropic activities in and around St. John's in recent years, including the allotment of funds for the construction of a new performance hall for the School of Music at Memorial University of Newfoundland and the sponsorship of several concerts, festivals, and conferences. While the industry has spent far less on initiatives in rural areas, where they have less of a presence, CAPP has allotted a small sum to support a "seabird recovery centre" in Placentia Bay in which seabirds that have been caught in oil slicks released by passing vessels can be taken to be cleaned and nursed back to health.⁸⁷ While most of these slicks are caused by passing shipping vessels in international waters and are unrelated to the local industry, this distinction is not apparent to most residents of the province. Thus, some in the local industry have concluded that it is in their best interests to take steps to appear as though they are doing all they can to combat the problem of oil pollution in all its forms.

Another approach pursued by the petroleum industry in Newfoundland had been to fund a new institutional body through which to engage bilaterally with members of the

Fish Food and Allied Workers Union, which represents the vast majority of fishers and fish processing plant workers in the province. One Ocean, an independent liaison group between CAPP and the FFAW was formed in 2002. The idea of forming a liaison group between the two sectors was first recommended by the Terra Nova Panel in 1997, a multi-disciplinary panel of researchers which released its report in advance of the development of Newfoundland's second major offshore oil project (Terra Nova Development Project Environmental Assessment Panel 1997). It was not until 2001, however, that concrete actions began to be taken to bring it into being. In the fall of that year, the Canada-Newfoundland and Labrador Petroleum Board sponsored a series of meetings between representatives of the two groups with a view to developing ways of improving the working relationship between the two industries (Slade 2003). The following spring, One Ocean was formally created. The agency is chaired by Dr. Arthur May, a former Deputy Minister of the Department of Fisheries and Oceans and President of Memorial University of Newfoundland, and is managed by a two person secretariat. It also includes a twelve member Advisory Board, which is intended to be made up of equal representation from the fishing and offshore petroleum sectors. (ibid: 18-19). At the time of its formation, it included: four professional fish harvesters, one fish processing company representative, one representative of the Canadian Centre for Fisheries Innovation, one representative of CAPP and five representatives of individual petroleum companies. Two government representatives also attend the meetings, one from FOC and

the other from the Canada-Newfoundland and Labrador Offshore Petroleum Board, but only to serve in an advisory capacity (ibid.)

The organization was initially established with a four year mandate to “provide a neutral forum for both sectors to facilitate communication, information exchange and shared opportunities” and to “endorse cooperation, transparency and a proactive approach to the exploitation of marine resources” (ibid: 19). It is also expected to: “commission research studies and conduct literature reviews to maintain diligent responses to industry inquiries” “ascertain potential problems” and “provide conflict resolution alternatives and independent expert analysis.” (ibid: 20). One Ocean has also developed a program through which the petroleum industry has provided funds with which to train fishermen to participate in oil spill response programs.

Another major function of One Ocean has been to identify areas in which the two industries have the potential to form strategic alliances, thereby strengthening their bargaining position relative to government departments or other industries. Reflecting on the merits of the initiative, one Exxon-Mobil executive stated:

The hope is that if you do get into issues of potential concern there will be a payoff, because you will have already invested time and effort and you already have a good relationship established. That's the theory anyway. You don't just come together when you have something that you need to deal with you try to keep the dialogue open and spot problems and opportunities well ahead of time.

One such case emerged in 2004, when the Canadian federal government began carrying out consultations with a view to listing Newfoundland cod as an endangered

species under Canada's new *Species at Risk Act*. Both the FFAW and CAPP have been outspoken critics of this legislation since its inception, particularly the provision that states that it is illegal to "kill," "harm," or "harass" a listed species. Both have made the case that the *Act* is based on a terrestrial model and does not translate well to the marine environment, where it is very difficult to know whether one is harming a particular species until after one has already done it. Many feared that this could lead to the unfair targeting of particular individuals or companies. One Ocean has served as a vehicle through which the two groups have sought to formulate counterarguments to this new policy and most of those interviewed conceded that this likely would not have been possible if the two groups had not already been engaged in a bilateral dialogue. Eventually a decision was made by Environment Canada to refrain from listing cod, despite scientific recommendations to the contrary, although it is unclear what role, if any, was played by the strong opposition of the two industries.

7.5 Chapter Summary

This chapter has described the ongoing efforts of members of the Newfoundland petroleum industry to engage with the new policy approach being ushered in through the *Oceans Act*. While most of those interviewed were understanding of the need for an overarching policy framework to coordinate interactions between ocean user groups and were supportive of the core principles of sustainable development and integrated management, many had serious concerns about how new ocean policies would affect their industry. The general consensus among interviewees was that the regulatory environment

in Atlantic Canada was already too cumbersome and prescriptive and many were worried that the *Oceans Act* was an attempt to reinvent the wheel. Echoing the discourses put forward as part of the new ecology, some worried that the federal government lacked the scientific knowledge needed to understand the marine environment and this climate of uncertainty could lead regulators to impose unnecessary delays on industrial activity. Many also feared that the new approach could expose them to the “unreasonable” demands of some environmental NGOs and fishers who were against oil and gas development on principle. They almost unanimously agreed that integrated management meetings should be kept small and should be restricted to “legitimate users” of the ocean environment. They furthermore emphasized the need for the process to be driven by clearly articulated shared goals and emphasis on efficiency and some believed that every effort should be made to ensure that integrated management did not simply result in “participation for its own sake.”

In response to these concerns, various segments of the industry have taken steps to try to influence the ways in which ocean policy is implemented in practice. CAPP has engaged in bilateral consultations with high level managers at Fisheries and Oceans Canada in Ottawa in an attempt to ensure that their concerns are adequately represented. Furthermore, the industry has engaged directly with the global Corporate Social Responsibility Movement in an effort to demonstrate that they are responsible stewards. Through these actions, the industry has sought to position themselves as a prominent

stakeholder and exercise a direct bearing on the way in which ocean management unfolds in the future.

Chapter 8 Community-based Conservation and the Cultural Politics of Marine Protected Area Planning in Newfoundland

This chapter discusses the rise and fall of an attempt to establish a federal Marine Protected Area (MPA) in the waters surrounding the town of Leading Tickles, on the northeast coast of Newfoundland. It begins by discussing the social and political context in which the MPA proposal emerged. It then describes the efforts that were made by a group of local fish harvesters to build support for the establishment of an MPA in the area and the challenges they faced in their attempts to get it off the ground. Finally, it discusses the circumstances that eventually led to the disbanding of the proposal in 2007.

While the marine protected area program is based on a model of consensus-based decision-making and shared responsibility for managing marine resources, the Leading Tickles case highlights the tremendous challenges of bringing this type of project into being. It illustrates the diversity of perspectives that can be present within a single “community” or “region,” even one that has long been bound together by relative geographic isolation and a widely shared dependence on marine resources. This raises questions about whether it is, in fact, possible to “empower” coastal communities without inadvertently resurrecting old antagonisms or creating new conflicts.

8.1 The Road to Leading Tickles

The road to Leading Tickles is a long and bumpy one. Beginning in the historic port of Botwood,⁸⁸ it winds its way through dense groves of spruce, fir, and birch trees and a seemingly endless network of ponds for nearly an hour before finally reaching the

cape. The town, which is nestled in the heart of Notre Dame Bay, is home to approximately four hundred people. Its provocative name is derived from the narrow, rocky straits (tickles) that separate the many islands in the area, creating a navigational challenge for inexperienced mariners (Story et al. 1982). The town is itself divided by one such tickle and is connected by a short causeway.

In many respects, Leading Tickles is typical of the many small coastal fishing villages that are scattered along Newfoundland's northeast coast. Settled around the turn of the nineteenth century by families from Twillingate and other larger fishing centres to the east, the local economy has historically focused on the catching, salting and drying of codfish for export. It was its close proximity to excellent inshore cod fishing grounds and abundant timber stands that first prompted people to move there, in spite of the fact that the headlands offer little shelter from the elements during the long and often harsh Newfoundland winter. During the twentieth century, people living in the area supplemented income derived from cod fishing by harvesting other marine species, including mackerel, herring, capelin, salmon, winter flounder, lobster, and seals. Some also pursued occasional wage labour, with local men most often working in logging camps.⁸⁹

While fishers residing in the town have historically used small boats and fished close to shore, the surrounding area has been fished extensively by large trawlers since the 1950s, first by foreign fleets and later by vessels based in nearby fish processing centres like Twillingate and La Scie. This heavy fishing pressure ultimately contributed to

dramatic declines in the catch rates of local harvesters during the 1980s, so much so that many had become convinced that a moratorium was needed several years before one was finally declared in 1992. While the population of Leading Ticks reached a historic high of over one thousand people in the late 1970s, on the strength of the booming inshore fishery that followed Canada's extension of its exclusive economic zone, it has experienced a steady decline since that time, particularly after the announcement of the moratorium.

At the time this research was carried out, people living in the area had become highly dependent on revenues derived from the inshore crab fishery. In many cases, married couples had teamed up to fish together aboard a single vessel. Leading Ticks does have a fish processing plant, but it is at a major disadvantage relative to other plants in the region because the town lacks access to three-phase power. This is a necessary prerequisite for the highly mechanized processing and flash freezing operations of fresh fish plants as well as most other forms of factory production. Instead, the plant has survived by continuing to focus primarily on the production of salt fish while most of its competitors have modernized their operations. According to the plant manager, the facility provides up to thirty people with at least some employment during the peak season, but is only able to provide five to six of them with enough hours to qualify them for Employment Insurance payments during the long winter offseason.

The Leading Ticks plant is now operated by a parent company, Golden Shell Seafoods of Random Island, which uses it primarily for the processing and salting of

mackerel and lumpfish that is landed in different locations along the northeast coast and cod, most of which is caught as bycatch by trawlers along Newfoundland's south coast before being trucked to Leading Tickles to be salted.⁹⁰ The plant also serves as a landing point for snow crab, lobster, and capelin which are caught by local harvesters and then trucked to various other locations across the island for processing.

As of 2006, the unemployment rate amongst those who remained in Leading Tickles was 53.1 percent, compared with 18.6 percent in the rest of the province and about half of the people living in the town derived most of their living from fishing or fish processing (Statistics Canada 2008). While few employment alternatives are available, some people do commute for two hours each day to work in Grand Falls-Windsor, most often in the call centre, the hospital or the small service industry. Still others have left Newfoundland, either seasonally or permanently, to work on the Canadian mainland, usually in the province of Alberta, which is enjoying the benefits of a booming petroleum industry and is experiencing a chronic labour shortage. Between 1991 and 2006, the population of Leading Tickles fell by 157 people, including forty-six since 2001 (Statistics Canada 2006, 2008). That represents a drop of nearly 28 percent since the announcement of the cod moratorium. Furthermore, most of those who have left are quite young, relative to those who remain, raising serious questions about the capacity of the town to sustain itself over time.

While those with crab licences and some seasonal migrants had enjoyed a decade of relative prosperity at the time when this research was completed, the town was facing a

number of major challenges, including a shrinking tax base and sweeping cutbacks to provincial and municipal services which were threatening its long-term viability. Residents often complained of inadequate snow clearing services and very poor road maintenance, both vital services in a place where many people's livelihoods depend on their capacity to drive to their places of work during the long and often severe winter. Some have moved to larger centres in order to be closer to employment opportunities. This trend has been intensified by the fact that many of Leading Tickles' elderly people have been transferred to a long-term care facility in Grand Falls-Windsor, creating an incentive for their families to move there as well to be closer to them.

I first arrived in Leading Tickles on a cool day in early November, overcast skies doing little to mask the stark beauty of the place. I had intended to speak with people about their reasons for choosing to pursue Marine Protected Area status for the surrounding waters and, to that end, I had accumulated a list of the names and phone numbers of people who I had heard had been involved with the initiative in some way. When I began calling them, however, it soon became apparent that the vast majority saw themselves as peripheral players and many politely expressed their concern that they could probably not be of much help to me. While many consented to be interviewed, they were quick to point out that the quest for MPA status was essentially the brainchild of one man, who I will refer to by the pseudonym Gary Peddle, and encouraged me to direct most of my questions to him instead.

I made Mr. Peddle's acquaintance the following morning. After completing another interview, I was provided with a rather crude set of directions to his home. I was told to walk toward the edge of a nearby cliff overlooking the ocean and then make my way down the steep foot path I would find there until I reached the water. As I proceeded gingerly down the trail, eyes fixed firmly on my feet, I was greeted by a booming voice in the distance: "How's she goin' b'y?" It took me a few seconds to realize that the voice was not emanating from below me, but rather from above. Mr. Peddle stood perched on the roof of his partially constructed home with a hammer in his hand and a broad smile across his face. He warmly introduced himself, as though he had been expecting me and proceeded to welcome me to the town. Although he was in a rush to complete work on his roof before an impending stretch of bad weather, we agreed to meet again later in the week to continue our conversation.

In the days that followed, I conducted a series of interviews with other people living in the area and I learned a great deal more about Mr. Peddle's biography. Descended from a long line of successful inshore fishermen, he had lived his entire life in Leading Tickle. In the aftermath of the moratorium, he had emerged as a community leader, struggling relentlessly to keep the town afloat, against seemingly insurmountable odds. He assumed a prominent role in the Leading Tickle-Glovers Harbour Fisherpersons Committee and often represented the two communities in meetings held by the Fish, Food and Allied Workers Union (FFAW). He also fought to keep the fish plant afloat and was able to obtain some funding to renovate it and enable it to handle a broader

range of species. He tried unsuccessfully to start a mussel farming operation in the community and later developed a pilot aquaculture project to take wild cod and grow them to larger sizes in captivity.⁹¹ He also became the first person in the community to begin scuba diving for sea urchins, and started a successful new hunting lodge and outfitting business which catered to big game hunters from the United States, mainland Canada, and Europe, most of whom were in search of moose and black bear.

Peddle was eventually elected mayor of the town and he sought to use this position to transform Leading Ticks into a tourist destination. He helped to procure a grant to develop "Oceanview Park," a large area of fully serviced oceanfront camp sites and trailer hook-ups, featuring a small takeout restaurant and the only cellular phone access point in the region. In an attempt to lure people to the park, Peddle aggressively campaigned for the construction of a new "Seaquarium" in the town. It was to be an ocean-themed museum, featuring illuminated tanks to simulate the local marine environment, along with an interpretation centre and a gift shop (The Express 1998). Peddle's initial vision had been to build it underground, with windows looking out to the real ocean, but had been convinced that it would not have been feasible. While the project ultimately failed due to the inability of Peddle and others to persuade investors to support it, his interest in taking advantage of public interest in the marine environment to revitalize the local economy remained his major focus in the years to come. This determination ultimately contributed to his decision to seek Marine Protected Area status for the area in 1997.

8.2 The Marine Protected Area Program in Newfoundland and Labrador

While the implementation of the *Oceans Act* was obstructed by a variety of forces at the national level, the challenges of putting it into practice in Newfoundland and Labrador were arguably even greater. In the mid 1990s, the Department of Fisheries and Oceans was facing widespread criticism throughout the province for its alleged mismanagement of the fishery. This problem was recognized by many of the federal bureaucrats I interviewed in 2003. Most were keenly aware of the obstacles that the agency's history in the region presented for them in their efforts to put new ocean policies into practice. As one individual working for the Oceans Directorate in Ottawa explained:

Newfoundland is an extremely touchy area, because of the strength of the fishing industry and the frustration left by the cod moratorium. I think that whole situation has shaped people's receptiveness to the oceans program. It has made them very leery of DFO, for one thing. I don't think there is any question that it is a very challenging place in which to move forward.

The establishment of new projects in the province was further complicated by the very public failure of another federal agency, Parks Canada, to establish a large marine conservation area in Newfoundland just a short time earlier. In 1995, Parks Canada developed a new policy framework which allowed for the establishment of "National Marine Conservation Areas" (NMCAs) in marine areas under federal jurisdiction (Parks Canada 1995). This power was later incorporated into formal legislation through the *National Marine Conservation Areas Act* in 2002.⁹² The agency was given a mandate to establish 29 NMCAs in different parts of the country for the purpose of "protecting and conserving representative marine areas for the benefit, education and enjoyment of the

people of Canada and the world” (Parks Canada 2002). While the main focus of the program was on protecting representative ecosystems, it was also designed with the intention of permitting the “ecologically sustainable use” of marine resources contained within NMCAs by human beings (ibid.).

In 1994, Parks Canada began carrying out informal consultations along Newfoundland’s northeast coast with the goal of eventually creating an NMCA to represent what it called the “Newfoundland Shelf” region (MacNab 1996; Lien 1999). The NMCA was conceived of as a marine extension of Terra Nova National Park, which had been established in 1959 (ibid.). It was decided that the NMCA would ideally take in an area of about three thousand square kilometres, including all of Bonavista Bay and the eastern half of Notre Dame Bay, and extending out to sea as far as the Funk Island Ecological Reserve, about sixty kilometres from shore (Lien 1999). The proposed area was home to about 60,000 people, 2000 of whom were commercial fishing licence holders (ibid: 5). It also accounted for the majority of the aquacultured mussel production in Newfoundland.

In 1997, Parks Canada undertook a feasibility study to assess the viability of an NMCA in the region. By March of 1998 a twenty person Advisory Committee was put into place, consisting of both researchers and representatives of various industries and community organizations (ibid.). The committee proceeded to carry out a series of public meetings to give area residents an opportunity to ask questions about the proposal and provide feedback.

While many interviewees agreed that the idea of an NMCA was initially well received by most people in the region because of its potential to attract tourists, over time a number of key groups began to come out against it. Most notable among these were the Newfoundland Aquaculture Industry Association, the Fish, Food and Allied Workers Union, and the Rural Rights and Small Boat Owners Association. All three organizations actively campaigned against the NMCA and their supporters openly voiced their displeasure with Parks Canada in public meetings and on radio call-in shows (ibid.). The project soon became a lightning rod for criticism of the federal government's failed fisheries policies, and of the unwillingness of Parks Canada to live up to many of the commitments it had made to local residents when it had established Terra Nova National Park nearly four decades earlier. Finally, in March of 1999, growing public opposition to the project prompted a non-secret vote amongst the Advisory Committee members, which resulted in a split decision in favour of terminating the feasibility study process. Growing tension within the committee and in the region at large soon led to the abandonment of the NMCA proposal altogether (Lien 1999).

Lien (1999) has identified several factors that contributed to the failure of the project. Most significantly, he has argued that the policy framework underlying the NMCA program could not be easily reconciled with the predicaments that fishing communities in the area were facing at that time. In the aftermath of the cod moratorium, many people were fearful about their capacity to continue to make a living in the region and were reluctant to accept a new policy approach that had the potential to further

restrict their use of the marine environment.⁹³ Some feared that the NMCA could result in a situation in which the interests of fishers would be marginalized to accommodate particular environmental concerns or to make way for new industries like tourism (Lien 1999). These concerns, he suggests, built upon longstanding distrust of government in many rural areas of Newfoundland and widespread “suspensions of bad intentions...on both sides” (ibid: 14).

Lien also points to a lack of support for the project at higher levels. He argues that ground level administrators were not given sufficient budgets with which to work, nor were they given adequate flexibility to allow them to adapt to problems on the ground as they emerged. This severely limited their capacity to engage in long-term planning. They were also faced with inadequate technological and scientific support, due in part to the lack of full participation from the management and science branches of Fisheries and Oceans Canada (ibid.). Interviews that I carried out in the region echoed these sentiments. Many people said that the inability of Parks Canada officials to definitively answer their questions about how the marine environment would be managed and which activities would and would not be permitted inside the boundaries of the NMCA led to growing suspicion about the agency’s intentions and helped to turn many people against it.

It was in this tense climate that the first *Oceans Act* projects in Newfoundland and Labrador came into being. In 1999, the Science, Oceans, and Environment Branch was established at Fisheries and Oceans Canada’s (FOC) regional office in St. John’s and granted responsibility for coordinating the implementation of the *Oceans Act* in the

province.⁹⁴ Faced with the task of overcoming public distrust of federal planning initiatives, they adopted a very different approach than their colleagues in other regions of the country. Whereas FOC regional offices based in Nova Scotia and British Columbia focused on the development of large-scale integrated ocean management projects, the Newfoundland region opted to begin by focusing on small-scale, “community-based” projects where there was considerable “grassroots” support already in place, so that their actions would not be viewed as an imposition from outside.

One such project emerged out of the ongoing efforts of a group of fish harvesters on Newfoundland’s Eastport Peninsula to develop measures to protect the area’s rich lobster stocks from increasing fishing pressure in the years following the announcement of the cod moratorium (Davis et al. 2006). The Eastport Peninsula is located in Bonavista Bay, which fell within the boundaries of Parks Canada’s proposed NMCA. Members of the Eastport Peninsula Lobster Protection Committee (EPLPC), which was created in 1995, sought to develop an alternative approach to conservation that was more sensitive to the needs of coastal communities. With the aid of FOC, the EPLPC was successful in creating a boundary around the entire peninsula within which local fishers were granted exclusive lobster harvesting rights. In return, they agreed to refrain from fishing for lobster beyond the boundary.⁹⁵

Within their exclusive zone, local lobster harvesters worked with FOC to establish ‘no-take’ closed areas around two groups of islands within the boundary that were believed to provide good lobster spawning habitat. They later decided to attempt to have

these closed areas recognized as a Marine Protected Area under the *Oceans Act*. The EPLPC also signed a memorandum of understanding with FOC agreeing to share responsibility for enforcement and the coordination of research activities in and around the closed areas. They have also developed a variety of other conservation strategies in an attempt to boost egg production in the lobster population, including the practice of v-notching egg-bearing female lobsters. This involves cutting a small notch in the tail of the lobster before releasing it so that others will know to return it to the water if they catch it again. It is now illegal to sell a v-notched lobster anywhere in the province. In the short time since the Eastport project was formed, it has proven extremely influential. It has been the subject of several documentary films and newspaper articles and has given rise to a number of spin-off projects, both in Newfoundland and internationally.

A second MPA project was located in Gilbert Bay, on the southeast coast of Labrador. It was quite different from the one in Eastport, in that it grew out of an attempt to provide special protection for a genetically distinct subspecies of cod. The fish are distinguished by their unique golden-brown coloration⁹⁶ and by the fact that they reside in the bay year-round rather than migrating into offshore waters in the winter to spawn. While recent research has suggested that similar "bay stocks" may also exist elsewhere in the province, Gilbert Bay is by far the best studied example of this phenomenon (Green and Wroblewski 2001; Gosse 2002). While the Gilbert Bay project has commercial fishery implications, proponents have also been quick to stress the potential of the so-called "golden cod" as a tourist attraction, as well as the possibilities for the commercial

aquaculture industry to take advantage of the fish's non-migratory tendencies. Both the Eastport and Gilbert Bay projects were identified by FOC as Areas of Interest (AOIs) for Marine Protected Areas in 2000 and received formal designation as MPAs in 2005.

8.3 "The Tickles" Marine Protected Area Project

Leading Tickles fell just outside of Parks Canada's proposed NMCA, but many local fishers had followed the process closely, believing that it could have an impact on their livelihoods if it were to be expanded or if those who fished within the NMCA boundaries were to shift their activities farther west. In 1997, while serving as mayor, Gary Peddle was made aware of the newly passed *Oceans Act* by employees at the local Regional Economic Development Board in Grand Falls. After meeting with representatives of FOC and the Exploits Valley Regional Economic Development (RED) Board in Grand Falls, Peddle became convinced that the Marine Protected Area program might be a good fit for the area around Leading Tickles and the neighbouring community of Glover's Harbour. In consultation with members of the Leading Tickles-Glovers Harbour Fisherpersons Committee as well as FOC and the RED Board, he developed a proposal to have the area formally designated as an MPA. When asked about his motivations for devoting himself to the idea, Peddle paused for a moment and then reflected upon the daunting challenges facing his town:

I think a lot about my community. A lot of people are leaving and taking their kids. They are talking seriously about closing the school and eventually she is going to go. We've been fighting to save it for the last couple of years, but it looks like it's probably a lost cause now. When that happens, you will have to bus them out and that will cost more. We're

already seeing the stores close down. This summer, the gas station closed down, so now you have to go to Point Leamington (a twenty-five minute drive away) just to get gas. It wouldn't surprise me that in five or ten years, the population will go down low enough that there won't even be community council or community water anymore. I might have to dig a well if I want to stay here.

In spite of the undeniable uncertainties about the future of Leading Ticks, however, he expressed his deep commitment to continue fishing there for as long as he possibly could and to do his best to make sure that others would have the opportunity to do the same:

I'm building a house right now, because I'm thinking and hoping that Leading Ticks is going to keep going for a long time, but I honestly don't know. I decided to build it right here beside the water because I love the ocean. I love fishing. It isn't the money part of it. It is just part of me. Years ago when they were buying fishermen out, I could have probably sold out. I would have found something, but I knew I just wouldn't be able to give it up. I just love it. My family has been at it for hundreds of years. My father was down there until almost his very last day. It was his life, his work, his pleasure, his everything. Now he never really went anywhere like I do, but I still think that if the spring of the year came and I couldn't get out in a boat on the ocean, I'd go nuts. I just love being out there. I think better. I feel better. Things come to me better. It just feels good. People make things complicated, but as long as you feel good when you get up in the morning, that's all that matters...If what's in front of me goes as fast as what's behind me, then I won't have much time left. So you've got to make every day count and do things that make you feel good and try to make a positive difference to the world. I never sat down and decided to be mayor or whatever. I just found myself in situations where I thought I could do some good, so that's what I tried to do.

He did, however, express concern that many people in Leading Ticks were losing touch with what had made it such a unique place in which to live:

The big boats have definitely been a part of Newfoundland history, but the small boats going out from the wharves and coming back to their families,...that's what Newfoundland is to me. When I was a kid, I saw so much cod and capelin that I never thought it could all be caught. Now

there's barely enough out there to keep it all going. There was a time when you could come down to that wharf, you wouldn't be able to get your work done, because there would be so many people and youngsters and everything around. Now, people say they could drown down there some days, because there's nobody else around. It is very sad. It is a way of life disappearing right before our eyes. The people here are who they are because they are so closely knit and that is being lost. Right now in Leading Tickles, if anything happened to people, others would take care of them. If their house burned down and they didn't have insurance, people would rebuild their house for them. And I know if anything ever happened to me, people would be right there for me and I would be right there for them. That's a good feeling. You just don't get that up on the mainland or in bigger places...and people are even starting to lose it here. It is sad that people here don't know what they've got. Some look at how much money people have on the mainland and all the things they have and they want to live like that...You see the same thing happening in the fishery. Years ago, if a fisherman made thirty thousand dollars, it was a good year. Now, I would say that most of the fisherman in this community are getting about thirty thousand dollars just from crab. Then they might get another five to ten thousand for lobster and they draw full unemployment on top of that, so they are looking at forty to fifty-thousand at least. People are richer, but are they happier? Back in the day, people didn't have all this stuff, but they were happy. They didn't know the difference. All of a sudden people think they need all this stuff to be happy. You can be happy anywhere, but these people are trying to measure happiness with money. They want more and more and more, and it is dividing communities. But, if you are the type to worry too much about how much money you have, you would probably find something else to worry about if that weren't there.

Peddle saw the MPA as a possible way in which to ensure that the fishery and the tourism industry could continue to provide modest livelihoods for those who wanted to remain in Leading Tickles:

I'm hoping this MPA will take care of the fishery and it will help the community for the long run. It won't be easy, but it will make a difference, and any difference it makes in rural Newfoundland right now is a plus. A few things have been built and it has helped a few little businesses around here. It has created a bit of employment. Sometimes it doesn't take much to make a difference. And people from outside can look and see that

people here are taking care of their surroundings and that makes the community look better, so maybe there is a possibility that people will move here. We are also hoping the MPA will bring tourism in. When I was the mayor of Leading Tickles, everybody who came to visit used to say how much they liked to come and look at the scenery, but then they would turn around and leave because we had nowhere for them to spend money. Now you can stop and get some food or spend a few dollars at the store or stay at the park or whatever. That's a step in the right direction.

He and others who became involved early on in the process believed that the MPA program provided a unique opportunity to simultaneously conserve and rehabilitate the fishery and create new opportunities to attract tourists to Oceanview Park by demonstrating that they were acting as responsible stewards of the marine environment.

George, a fisherman who had worked on the project explained:

This is mainly about protecting our fishery, but we hope it will bring in some tourists too. I believe that you can really draw a lot of attention to an area that is protected like that. You can draw a lot of interest that way. It's a good thing to do also, because we've got a bad reputation in the eyes of some people, especially mainlanders. They think we just kills everything we sees. It probably comes from all the TV stories about the seal hunt, which makes us look like barbarians. They never give the Newfoundlanders a chance to tell our side of the story. This MPA is going to give us a way to show people that we do care about the environment. We want to protect the whole ecosystem and not just those parts that look cute and cuddly.

While the group based in Leading Tickles and Glover's Harbour was actually the first in the province to submit a proposal to FOC, the project was considerably slower in developing than its counterparts in Eastport and Gilbert Bay. When asked why that was, one FOC employee speculated that was due in part to the fact that it lacked a "marquee species" and this made it harder to build support for it at the national level. Whereas

lobster and the “golden cod” have become synonymous with the Eastport and Gilbert Bay projects respectively, the people of Leading Ticks and Glover’s Harbour wanted their project to be broader in scope, tackling a wider range of species, so that it could have a more significant impact on the health of the local fishery. In addition to lobster, the Leading Ticks project sought to develop protection measures for several other commercially harvested species as well. Peddle explained:

We borrowed some of the stuff that worked for people in Eastport and Gilbert Bay, but this is a very different area. Gilbert Bay is a cod one. Eastport is mainly lobster. Here we have a lot of different species. It is a rougher and more out in the ocean type of area too. There are also more fishermen to deal with. So, it is much more complicated. This will be a harder MPA to supervise than any of the rest of them. There are so many fisheries going on. It is an advantage to have so many species involved, because we can tell people how much we’re doing, but it is a disadvantage, because it is a lot more complicated. If you can get an MPA to work in an area like this, there is potential you can get it to work a lot of other areas, because this is one of the toughest areas to do it in.

In spite of these logistical challenges, the Leading Ticks area was formally designated as an Area of Interest for an MPA by FOC in June of 2001, one year after the same status had been given to the other two pilot projects in the province (Fisheries and Oceans Canada 2002b). By 2003, a multi-stakeholder steering committee had been established to oversee the ongoing operations of the proposed MPA. It included representation from FOC, the Provincial Department of Fisheries and Aquaculture, the Leading Ticks-Glovers Harbour Fisherpersons Committee, the Leading Ticks Town Council, the Leading Ticks Harbour Authority, the Exploits Valley Economic Development Association, and the Lewisport Yacht Club. In the case of both Leading Ticks and

Eastport, however, the steering committees were structured in such a way that only permanent residents of the area could be voting members. Outside investors and others wishing to do business in the region would be permitted to attend meetings and make their case to the steering committee, but they would not be permitted to vote on issues that were up for debate. Furthermore, in both cases, people employed as fish harvesters were given the majority of the seats, so they had the power to effectively veto any motions that they did not see as being favourable to their best interests.

8.4 Islands of Sustainability: The Political Ecology of MPAs

The official recognition of the Leading Ticks site as an Area of Interest enabled those involved to access some new research funding through FOC and other government agencies. Between 2001 and 2006, the agency helped to fund a variety of studies in the area, with a view toward gathering background data that could be used in the planning of the proposed MPA. In 2004, a plant and algae survey was carried out and divers, underwater cameras, and aerial photos were used to identify and map the marine vegetation in the area (The Coastal Current 2005a). That same year, Leading Ticks was one of five communities in the province that was selected to participate in a lobster conservation project based in part on the model developed at Eastport. The program, which was funded through the Atlantic Canada Opportunities Agency and the Newfoundland and Labrador Legacy Nature Trust, included the formal involvement of fishers in the at sea sampling, tagging and v-notching of lobsters, and the rough assessment of the numbers of juvenile lobsters in each area (The Coastal Current 2005b).

There were also several closed areas established to protect lobster spawning habitat and, after 2006, this was expanded into new areas in an attempt to protect capelin spawning habitat as well (The Coastal Current 2006c).

In 2005 and 2006, this research was expanded. FOC, in collaboration with the Leslie Harris Centre of Regional Policy and Development, a research institute at Memorial University of Newfoundland, funded new studies to determine good spawning areas for lobster, capelin and herring and surveys to estimate the egg densities being produced by each of these species in the Leading Tickles area (The Coastal Current 2005c). Fishers were paid small sums to encourage them to take part in these research projects and to take scientists to various locations in their boats. In the Leading Tickles area, some fishers were also invited to share their knowledge with scientists in order to provide them with a better understanding of the area. Many of those interviewed indicated that they very much enjoyed their participation in these programs and hoped they would have the opportunity to continue to do it in the future. Several did, however, express concern that, with the exception of lobster and crab, they were dealing with highly migratory species that were very difficult to study. Peddle observed:

You need the MPA for lobster and crab and species that don't travel much, but with traveling species, what can you do? The problem with those ones is that a lot of people think that if I don't catch it, somebody somewhere else will, so I better catch it first. I guess all you can really do is try to protect the spawn, but if the fish are going somewhere else and other people are taking them all, then it is hard to get people involved.

This is also a problem with lobster, to some extent, because lobster larvae can drift considerable distances with the tide before finally sinking to the bottom and hatching. Thus, depending on tidal patterns, the production of more eggs in one area may actually benefit harvesters somewhere else more than it does those in the area where the eggs were first laid (Davis et al. 2006). In an attempt to better understand this problem, graduate students from Memorial University carried out a "drifter study," releasing hundreds of grapefruit around the closed areas and attempting to recover them at other locations along the coast in the days and weeks that followed. These results were used to estimate the drift pattern of lobster larvae produced in the closed areas (The Coastal Current 2005c). Shortly thereafter, FOC installed eleven thermographs in the waters surrounding Leading Tickles and Glover's Harbour to determine the water temperature 30 feet below the surface. The thermographs automatically test the temperature every two hours and are also capable of taking underwater photographs (The Coastal Current 2006a).

In an effort to better protect commercially fished species, harvesters in the area once again followed the Eastport model in seeking exclusive access to particular areas so that they could develop their own approach to conservation. Peddle explained:

Until you have laws in place, people can come in from anywhere in Newfoundland and fish it. You could have all the fishermen in Newfoundland if you get things going good. You don't have that yet, because the crab has been doing so well. We've got our area here, but it is very complicated to keep people out of it. If they aren't allowed to come into our area, then are we not allowed to go into theirs either? With the lobsters, we are making it so that only somebody who has fished there historically can fish there now. If people never fished there all those years, the only reason they would come in later is because we have made it better.

That's not a law yet, but I think it is pretty much a gentlemen's agreement. With capelin, we came up with the idea that anybody in Notre Dame Bay that has a license can fish capelin in this area, but nobody from outside of this area. But this is a big area, so that's still a lot of fishermen. We're hoping the capelin thing will come through. We would also like it so none of the big purse seiners can come in here. They can take 50,000 and throw the other 150,000 on the bottom. I've seen that a lot. Smaller guys don't have the capacity to do that. So that change would certainly help.

While officials from FOC Oceans were working with other branches of the agency in an effort to provide local fishers with some degree of exclusive access, it seemed clear that the MPA project would also be accompanied by clear expectations about how it should operate in the future. One FOC official who had worked on the Leading Ticks initiative explained:

The fact of the matter is that DFO is simply not going to pay for everything anymore. If these projects are going to be community-based and they want more of a say, they are going to have to shoulder some of the financial burden. With rights come responsibilities. We're requiring collaboration at every level now...Voluntary, self-regulating regimes are becoming well established and accepted by industry, governments and consumers, and that's what these projects are trying to achieve...We pay for a lot of the incidentals, but when it comes to paying for the salaries for coordinators and raising public awareness, and that sort of thing, the funding will have to come from those who use the area. So the reality is that if a project like this is going to succeed, it will always have to be looking for new sources of money.

This philosophy represents a radical departure from the more top-down, state-funded approach to ocean management that was pursued in previous eras. Instead of shouldering all of the responsibility for keeping MPA projects afloat, those charged with implementing the *Oceans Act* had been instructed to develop a more decentred approach, in which non-state actors are expected to play a more prominent role. Most of those

involved in the Leading Ticks project seemed to accept this new reality, and some expressed sympathy for local representatives of FOC's Oceans and Environment Branch, who they felt had done as much as they could with the limited budgets they had available to them. Charlie, a fisherman who had been employed by the lobster tagging project noted:

The people from DFO were telling me how hard they had to work to get money for it this year and how hard they will have to work to get more money for it next year, so hopefully it won't just die. It's the type of thing where, if you don't keep it up, it's useless. That would be some sad if it does stop, because we've all put a lot of effort into it. I just don't see the research being any good to us if we don't do the same things next year as we did this year, but it's not so easy when you can't plan ahead and you always have to be thinking about how you're going to get more money for next year.

Some of those fishers that were closely involved with the project had sought to develop ways of reducing costs associated with running it. This included voluntarily policing the would-be protected area themselves to make sure that nobody was poaching at times when there were very few boats on the water. This followed the approach taken in Eastport, where poaching had become a serious problem, due in part to the proximity of lobster fishing sites to cabins in the neighbouring Terra Nova National Park (Davis et al. 2006). There were also discussions held in Leading Ticks about ways of raising money for the MPA at the community level, including the possibility of holding a polar bear dip and trying to attract people to sponsor those brave enough to take the plunge.

Representatives of FOC based in St. John's also took steps to assist those involved with the three MPA pilot projects in their efforts to lure external financial support,

demonstrating that corporate philanthropy is being viewed as a legitimate source of the funds through which to keep these "community-based" MPA projects afloat. In 2003, they worked with a design firm in St. John's to create corporate-style logos for the proposed MPA sites, so as to make them look more attractive to tourists and prospective investors. In the cases of Leading Ticks and Eastport, the logo designs were based on the winning entries in a contest that was held at the local high school, while the Gilbert Bay logo was the creation of the company.

FOC's Oceans and Environment Branch also enlisted the assistance of the Newfoundland and Labrador Legacy Nature Trust, a non-profit organization based in St. John's with a mandate to raise funds from the private sector to support conservation projects operating in the province. The Legacy Nature Trust was ultimately successful in raising some corporate money to support various activities associated with the three MPA projects. The Shell Canada Environment Fund, a philanthropic arm of Royal Dutch/Shell's Canadian division, contributed funding to assist with scientific research at Leading Ticks and to pay a small part of the salary of a full-time co-ordinator that was hired to assist the Steering Committees of the Leading Ticks and Eastport projects. Another petroleum company, Petro-Canada has helped to fund research at Eastport and Gilbert Bay and has contributed ten thousand dollars to support the production of signs and brochures which promote the Eastport project, while also prominently featuring the Petro-Canada logo (The Coastal Current 2006b). Petro-Canada, along with fellow corporate donors Shell International and outdoor apparel chain Mountain Equipment Co-

op have also had their logos featured as sponsors in issues of the Coastal Current, a two page quarterly newsletter produced by the FOC Ocean Branch in St. John's, which provides updates on the ongoing activities of the three proposed Newfoundland MPA projects (The Coastal Current 2006b).

When interviewed in the summer of 2004, the acting Director of the Newfoundland and Labrador Legacy Nature Trust indicated that she saw many opportunities for public-private partnerships in funding the operations of MPAs and other small-scale conservation projects:

The DFO people came to us because they feel that they shouldn't be the only ones pumping money into this. I don't think that DFO would say that full government funding for MPAs is appropriate, and I would tend to agree with them. I think the communities should have ownership of it. The government is there to govern or administer the *Oceans Act* and work with the local communities to make sure that the regulations are understood, and I think that should be the role of DFO. My personal opinion is that, if it were to go beyond that and governments were to start pumping money into this, that would put certain other things and processes at risk. I think there is a role potentially for a number of different entities and partnerships to get involved. The mandate of the government is not to go out and fundraise either. So they need somebody to come in and help play that role and that's where we come in. That's not to say that the people on the Steering Committee aren't doing anything, because they are. They're out there trying to be self-sufficient themselves as well.

She added that, for some private-sector donors, the fact that the project can be marketed as "community-based" is an attractive selling point:

Some funders explicitly say they want the community angle. For many funders, what makes the project attractive is that it is community-driven. Like Shell's Environmental Fund is one of the ones that explicitly wanted their money to be used for a community-based project. It is part of their mandate. I think that is important to think about with funding...If DFO

had a huge involvement, then a lot of foundations especially wouldn't be as eager to throw money at it, since they would see it as a government initiative rather than a community one...Of course, the private sector partners do need to be recognized, but not necessarily through flashing lights or whatever.

This focus on projects that are not government driven is very much a reflection of the core ideals espoused by the creators of the Corporate Social Responsibility movement discussed in the last chapter. It expresses a preference for a more overtly "community-based" and "market-based" approach to conservation, in which government plays a less prominent role, and communities, universities, and private companies assume a heightened importance. Despite this new focus, however, most FOC employees indicated that they continued to pay for most of the research initiatives undertaken in and around the three MPA sites.

While representing an attractive source of funds for conservation projects, there remains a danger that this growing focus on private sector support may result in a situation in which decisions are made for reasons other than the protection of the environment, and local people may eventually come to be displaced from the spaces they have used historically. In reference to the well-established tourism industry in the Mexican State of Quintana Roo, Pi-Sunyer and Thomas have noted that: "all too often ecology has been co-opted by the market...The underlying reality is that both nature and people...are constantly asked to define everything in terms of price" (1997: 196-197). They furthermore argue that this marketization of nature for the sake of tourism has sometimes led to the extinguishment of existing "rights to land and resources," as "the

assertion by those in power that local people were not using their lands “properly” has been used to redefine “resources” and “public space” as “private property” (1997: 198).

While most of those fishers who had been heavily involved in trying to get the MPA established were willing to do their part to keep it running smoothly into the future, several expressed concern that the recent shift toward “community-based” projects was coming at the expense of FOC’s historic responsibility to enforce fisheries regulations and carry out research. Both functions were severely eroded during the neoliberal reforms of the 1990s, and little, if anything, has been done to restore them. Several people openly worried that without a greater federal commitment to understanding and protecting the ocean environment, there was little hope for the future of the fishery around Leading Tickles, or anywhere else in Newfoundland. Gary Peddle noted:

We’ve definitely been seeing DFO cutbacks over the last ten years or so. We’re not getting anything like the enforcement we used to get. Some fishermen don’t want to see DFO enforcement officers on the water, but most people are happy to see them coming and wish they saw them more. There is nothing wrong with seeing a fishery officer every once in a while to keep everyone honest. If I’m going to do it right, I want to make sure that buddy over there is doing it right too. That’s the general way of thinking. Most fishermen are willing to do the right thing, but if they know their neighbour is cheating, they’ll cheat too...DFO is counting on communities to police themselves, and that’s good to a point, but don’t put it all in our hands, because we can’t do it by ourselves...Sometimes it feels like the senior people in Ottawa are only getting interested in MPAs because they want to look good in the international community. They feel that they need to show that they are doing more to conserve fisheries and stuff like that, but there have been so many cutbacks in other areas. Local people do a lot of the work, and that’s fine, but at the end of the day, the finances and everything depend on Ottawa. If they don’t support it, it’s gone.

Charlie echoed these sentiments:

There have been so many cutbacks at DFO. Fisheries officers can barely get enough to pay for their gas to go around in the boat. To me, it seems like fisheries officers are trying to do their job, but DFO has no money, so they are relying on communities to do everything. That's a good thing in some ways, but we need the fisheries officers to support the communities and be involved with them more. What good is a protected area if you don't enforce it? That defeats the whole purpose. We've got to be a part of it too, but it is no good if we don't have protection for it. I don't think I saw a single fisheries officer all summer. I was at crab for two months and lobster for two months and capelin too. I spent a good bit of time on the water, but I didn't see them once. You used to see them every day but they have been cut back so much. The DFO people that work with us are best kind but the government people in Ottawa seem to have their priorities in other places.

In many respects, these arguments echo the Tragedy of the Commons thesis (Scott Gordon 1954; Hardin 1968), suggesting that the risk of getting caught is a necessary deterrent to prevent people from overexploiting local fisheries.

Many of those fishers interviewed also pointed to the failure of FOC to re-invest in ocean research on a larger scale. While several people praised the work of FOC Oceans Branch employees and expressed gratitude for the research that had been done locally as part of the MPA process, some noted that this focus on small scale projects like MPAs appeared to be coming at the expense of other kinds of research. The result was a move toward small community-based 'islands of sustainability' within what many believed to be a largely unsustainable ocean economy. George pointed out that without any science being done in many areas, the tendency had been to use research carried out in one area to make decisions in another and that often gave an inaccurate picture of what was

happening. This often contributed to a one-size-fits-all approach to establishing fishing quotas which often seemed out of touch with the experiences of fishers:

If they don't continue to keep up the science over the long term, it defeats the purpose. Nothing is stable and things change very quickly. There is a lot to learn, and you can't even begin to do it without putting in long term money. They just don't have much science, so they are using old research. Sometimes they might be using a study that was done in a different place a long time ago. Like, they'll do a trawl in Trinity Bay and use it to make decisions about Notre Dame Bay, but one area can be totally different than another. So how are you supposed to take that seriously?...In Eastport and in a lot of other places on the northeast coast, their lobster went down in the early 90s, but our lobster isn't down here in Leading Ticks. If you look at our log book statistics over the last twenty years, you would find that it has been pretty consistent. The federal government loves to say 'the lobster fishery is down on the northeast coast,' but I asked them if there has ever been a study done in Notre Dame Bay and they told me there hasn't. So they don't really know what's going on, do they?...They also love to talk about cod increasing and decreasing, but how can they know that when they don't have scientists out there testing it. They have no boats on the water. It's the same thing with the crab. How do they know how they are doing unless they are going around doing tests? It's a joke!...It seems like the government wants the communities to do all the research for them now, but the communities can't do it all. They don't have any money. They can't even afford to take care of the water and sewer. Most fishing communities in Newfoundland are stripped down to the bare bones already.

David, a non-fisher living in the area who had worked in fisheries research in the past questioned the sincerity of the recent emphasis on ecosystem-based management, given that so few resources have been allocated to that task:

I just can't see how DFO is going to govern the way they want to govern in times of cutbacks. Ecosystem based management would require a lot of research and they don't even have the funding to give a good assessment of fish stocks. The science is just not there. And they are talking about broadening their horizons into areas that are new to them? Where are they supposed to get the money for that?

This sentiment was shared by one manager working in the FOC Fisheries Management branch office in Grand Falls, who was responsible for setting fishing quotas for people living in the Leading Tickles Area.

There is more and more talk of doing ecosystem-based management, but that is going to be so complicated, it is not even going to be funny. You've still got your fisheries management over here and your ecosystem science over there and they haven't really come together yet. The reality is that we are working with very limited budgets and there is also the time issue. To do something like that properly, you would have to have a lot of resources to put into it, particularly in terms of time. There is a huge amount of background work that would be needed to develop a plan, and believe me, there are not many days where you're sitting around wondering what you're going to do next...Something like an ecosystem approach is very difficult to implement when you are already pressed for time. You already have to pick and choose what you do with your time and money. In Conservation and Protection, which is responsible for the fisheries officers, they are still operating with 1995 budgets, and you know what inflation rates have been since then. And then there are the fuel prices. They have bigger boats now, so they feel the impact, definitely. They just can't get out there as much as they used to.

These statements indicate that federal cutbacks have severely constrained the capacity of ground level researchers and enforcement officers to do their jobs effectively. For many, the promise of ecosystem-management being trumpeted in Ottawa seemed profoundly out of touch with their lived reality in which there had been a noticeable decline in the investments that the federal government was willing to make in the coastal fishery. While corporate funding may be used to offset some of these cutbacks, philanthropic donations tend to focus on small and highly marketable initiatives that produce local benefits and aim to improve the reputation of the company in the minds of potential customers and

shareholders. Corporate donors do not tend to fund the kinds of long-term studies that were historically done by government departments in an attempt to anticipate changes to fish populations and ocean processes.

8.5 Community in Question: The Beginning of the End of the Leading Ticks Marine Protected Area Project

Proponents of the MPA program in Canada have tended to argue that it represents the antithesis of the old top-down conservation approach, in that communities are now being “empowered” to present their own perspective on what must be done. In theory, the goals and strategies pursued in each MPA will reflect the shared values of those living around it. The notion of community-driven conservation, however, tends to operate on the assumption that communities are fairly homogeneous entities, or are at least capable of arriving at a consensus about what should and should not be done (Brosius et al 1998). Otherwise, the idea of a single “community perspective” becomes nonsensical. As well-intentioned as they may be, community-based conservation projects are perpetually at risk of being undermined by the social tensions and conflicts that exist within designated “communities” or between them and neighbouring groups, thereby exposing the heterogeneity that is masked by homogenizing notions like “community” or “region.” This section discusses each of these cases in turn.

8.5.1 Pressures from Without

For most of the twentieth century, the maritime economy in Notre Dame Bay focused almost exclusively on fishing and fish processing. While the port of Botwood did

receive some commercial and military shipping traffic, these activities were able to coexist with the local fishery with minimal disruption. In the early 1980s, however, a new industry began to take hold, which led to a significant reallocation of ocean space. Due to its many islands and sheltered inlets, Notre Dame Bay quickly emerged as a desirable location for Newfoundland's growing blue mussel farming industry. By the end of the decade, it had more mussel farms than any other bay in Newfoundland by a considerable margin.

Mussel farmers in the region, represented by the Newfoundland Aquaculture Industry Association (NAIA), were one of the main groups that came out in opposition to Parks Canada's NMCA proposal in the mid 1990s, arguing that it would undermine the capacity of their industry to operate profitably. While NAIA fought the idea of an NMCA from the outset, it was only after they allied themselves with the Fish, Food and Allied Workers Union, that they were able to successfully campaign to have it stopped. Rick, a mussel farmer who operated several sites close to Leading Tickles and Glover's Harbour and was one of the most outspoken critics of the NMCA proposal reflected on this period as follows:

We fought that for a couple of years, but we were getting nowhere until the fishermen's committees got the support of the union. Then there was a big uproar, as there should have been. They began to understand what we already knew...that that thing would have limited the activities of the general public and of other user groups and it would have given Ottawa control over everything. That's what we totally objected to...It might have brought in a bit of money through tourism, but it would have severely limited aquaculture expansion and it would have severely limited what the

fishery could do. You would have needed a permit from them to do just about anything.

He was particularly concerned about the new focus on the precautionary approach within Parks Canada, FOC and other federal agencies. Much like the petroleum industry executives discussed in the previous chapter, he viewed it as a potential threat to the operations of his and other ocean industries.

They say they are on the side of the precautionary approach, right? So that usually means that they are going to try to water down commercial activities within that zone. If they just want ecotourism, they will find some excuse to shut down any activities that they think will interfere with that. They can use that idea of the precautionary approach to stop anything that could negatively impact the environment, whether or not they have the science to prove that it actually is harming the environment. It doesn't matter about the social impact or the social responsibilities that the federal government has got to the people living on the coast.

In his view, the precautionary approach tended to define ecosystems in a narrow fashion that did not include people and, as a result, it failed to adequately consider the impact that stopping development could have on coastal residents.

While Rick and other members of the aquaculture industry in the area had the opportunity to participate as the NAIA representative on the steering committee for the proposed Leading Tickles MPA, he eventually decided against it because he had become convinced that FOC's MPA program was simply a continuation of the same federal agenda that had characterized the NMCA period. He believed that the federal government had come to the view that it was politically necessary for them to begin with small

projects, but their ultimate goal was still to expand these projects into a much larger vision:

They are sneaky buggers. What they are trying to do is encompass the headlands and ultimately achieve the same thing under a different heading. That is what I feel they are trying to do in the Leading Ticks area. That is the headlands, right. It's the same thing with Eastport. What they are doing is encompassing is the upper headlands for the exact same conservation area they wanted three or four years ago. They are trying to do it through the back door. So, if they take Bonavista and maybe Twillingate and so on, they can create three or four exclusion zones with all of these designated conservation areas. Then they've got exactly what they wanted in the first place. Once they have a few of these things in place, they can slowly expand it. Just you wait. Once a few of these are established, they can say that they want to add a three kilometre buffer zone around the MPAs and it goes from there. We know all about that strategy in aquaculture. Once you get established and you have a presence there, you can prove you are a legitimate stakeholder and then it is a lot easier get the green light to expand your operation. So, ultimately, I think that is the objective, even though it is spearheaded by some of the fishermen. The government will get what they want somehow. They will get control. Then FOC and Parks Canada and the Canadian Wildlife Service can all have a war between themselves to decide who gets jurisdiction over it.

He furthermore contended that many of the people of Leading Ticks and Glover's Harbour were profoundly naive about the real rationale behind the MPA project.

My impression is that what the federal government is doing is what's good for the federal government, but it isn't good for us. And I don't think it will be good for the fishermen or anybody else that is using the ocean environment. The fishermen see it as a way to protect their lobster and things like that. They will say that DFO or Parks Canada or whoever won't be able to control it because the fishermen will have more votes. They will say it isn't going to restrict them. But you and I both know that once the legislation is in, it can be used to their disadvantage. Those guys are only looking at the commercial fishery. They aren't thinking about the ecotourism that could interfere with fishing or any other potential conflicts that might come along down the road. The fact is that the cod fishery is still not open and the crab isn't going to last forever and there are no

young people coming into the fishery. Most people over there are over forty-five or fifty years old. So, in another ten years, they will be retired and guess who is going to run things then? Whatever the people in Leading Tickles think they are going to have, it will be over some quick. There is a hidden agenda, but none of them see it. Somebody in government is looking twenty years down the road or whatever. All they have to do is decide that the cod or the lobster or the mackerel or herring or capelin or whatever is in danger and then they can use that to justify closing down large areas.

Rick felt that he had already been adversely affected by the proposed MPA, because it had denied him of the opportunity to expand his operations into new areas.

There may be some positives that come out of the MPA down there, but right now, it is inhibiting the expansion of aquaculture in this area...The reality of mussel farming is that you need to encompass huge amounts of water and, naturally, that sometimes interferes with the lobster fishery and so on. Where we were going to expand is right near the border of where they were going to have this Marine Protected Area. So I applied for a licence and every person in Leading Tickles signed a huge petition and sent it to the province to block me from expanding there. They block us and, at the same time, they want us to support them with their MPA. They want everyone else to go along with what they want, but they don't want to see anybody else expanding. That's kind of hypocritical if you ask me. I'm just going to go through the normal processes and then they will have to have a sound reason to stop me from expanding, but even then, DFO makes you go to the fishermen's committee to make sure they don't object. That MPA will give them even more control over me than they already have. Just imagine if they get complete control over that area...We're not allowed to have a vote. We can have an affiliation. We can listen in, but we can't get a vote. But the fishermen don't speak for aquaculture. They aren't representing aquaculture, they are representing the fishery. They are representing their own interests and their livelihood or whatever, and more power to them. But, they shouldn't tell us that we can't expand into that area and Parks Canada or DFO or Environment Canada or whoever else shouldn't stop us from going into that protected area, especially when they have no ecological reason to do so.

Much like developers in the petroleum industry, Rick resented the fact that there was still a tendency to define ecosystem in ways that failed to acknowledge the presence of existing industries. He saw his activities as very sustainable and even complementary to the fishery, since it provided additional sources of food for lobsters, and he felt that political and not scientific motivations were ultimately responsible for curtailing his plans for expansion.

In Rick's view, freedom to expand the mussel farming industry in Notre Dame Bay was the only hope for the long-term survival of the industry and the jobs that it provides to people in the area. He believed that the mussel farming industry in Newfoundland was at a natural disadvantage relative to other areas to begin with and it could not stand to be curtailed any more than it already was.

Right now, we just can't compete internationally. Distribution networks are everything. We've got so many mussels here with no place to go. You just can't get them out of Newfoundland quickly and cheaply enough. You've got to deal with really high winds here, and a truckload of mussels can easily get stuck waiting for the ferry to Nova Scotia. If that happens, it can miss the connection to Boston, and if it does, it has to go to Toronto or Montreal and by that time it is four or five days old. The growers in PEI can get their mussels anywhere within twenty-four hours, whereas it can take us four days.

The advantages Newfoundland mussel growers did have, however, were comparatively clean water and ample room to expand their operations into new areas. This, in his view, gave them a genuine opportunity to lure investment from multinational corporations, intent on transporting large quantities of mussels to the European market.

There is huge demand in Europe, but logistically we can't ship it there on the scale that we're working on now...I think in the next few years, you are only going to see just a small number of major players in the mussel farming business. The little household operations simply can't compete. Some have been bought up already, but I think soon you're going to see a major expansion with big European multinational companies coming in here. There are companies that are already starting to make big plays in the mussel industry in Newfoundland, so I can still see a future. I think the writing is on the wall. If you look at it, European waters are being more and more contaminated by bacteria and by heavy metals. They are also having problems with parasites and diseases. Europe has to get a source of raw material from somewhere. Eventually they are going to discover what we have here. Once it starts, it's going to go big. So, in order to compete, we're going to have to modernize. I can't stress that enough. Go big or go home. Volume is the key. We will need to produce four times what we're doing now. We need to get modern equipment and create efficiencies and compete globally. Transportation costs alone put us at a major disadvantage, so you have to make that up on your farming side or your processing side or a combination of both. But first you need to get that volume. That has been the history of the industry from the beginning. We don't produce enough to make it worthwhile to export quantity from here. What Newfoundland grows in a year, the European factories can process in a day. So, for now many of us are just trying to get to that level where we can get bought out and get out of the business.

In addition to worrying about the MPA project limiting his capacity to expand his operations, Rick was deeply concerned that it could also be used as a vehicle through which to rebuild the local eider duck population. While the Newfoundland and Labrador eider duck population remains quite strong, the Canadian population is in serious jeopardy. It has been estimated that it has been reduced by about 80 percent from its historic levels, and now stands at about 400,000 birds, about one quarter of which reside in Newfoundland (Canadian Broadcasting Corporation 2005h). Even in that province, hunting has led to a significant reduction in their numbers in some areas, especially in

Notre Dame Bay. One official at a regional development board in Gander who had worked extensively in wetlands conservation in the area estimated that the population on the northeast coast of Newfoundland had fallen from approximately 150,000 breeding pairs to a low of about 500 breeding pairs in the 1980s, but it has been rising steadily since then. This recovery had been driven in large measure by the combined efforts of the non-government organization Ducks Unlimited and the federal government's Canadian Wildlife Service. The former has invested upwards of a million dollars in trying to bolster the resident population. These developments were extremely troubling to Rick, since eider ducks are voracious predators of mussels:

We haven't had problems with birds as predators yet, but that is one of my biggest fears with this MPA. It will pave the way for them to reintroduce eider ducks in this area, and that will wipe the mussels right out. They don't exist here now, although they did in the past. So, why should they use my tax dollars to reintroduce a predator to my area that is possibly going to put me out of business? Once ducks find you, you're finished. They have destroyed seed farms overnight in PEI, Nova Scotia, and New Brunswick. They multiply very quickly and, once they sense that there is a source of food, they migrate and colonize new areas. Then they keep returning to the places where they have found food. We have already heard from Canadian Wildlife Service that they want to reintroduce eider ducks and I believe the hunting lobby is involved in that too. Once the federal government have the MPA, they won't need consent to reintroduce them. They can say that eiders are part of the historic marine environment and they'll do that in a heartbeat and people won't even think twice about what it will mean for us. The only alternative I have then is to go get a lawyer and send a letter to them saying that if they do something that will affect my operations down the road, I'll take action. If the MPA is going to be used to protect the core fisheries and help the fishermen have a livelihood, that's fine, but I should be allowed to have a livelihood too. If they want to do this enhancement, they should do it where there are no mussel farms.

Once again, Rick's stance highlights an interesting dilemma. In his view, the considerable economic benefits provided to the region through aquaculture and the tremendous potential to expand the industry in the years to come necessitated that it be prioritized over the desire to encourage the recovery of eider ducks in the region. He viewed the latter concern as emerging from a misguided sentimentality that was based on the idea that a supposedly "natural" ecosystem characterized solely by indigenous species is "healthier" and more desirable than one that had manipulated by human beings in such a way as to improve its profitability. Rick's staunch refusal to support the MPA served as a clear critique of the idea that community-based protected areas are inherently good and beneficial to all who reside in a given region.

Another critical discourse about the MPA initiative emerged from some individuals that I spoke with in the town of Point Leamington, which was about a twenty-five minute drive south of Leading Tickles, on the road to Botwood. While Point Leamington also borders the coast, it is significantly farther from the headlands and has historically had access to far fewer marine species than have the people in Leading Tickles. While small numbers of people in the community have made a modest living by fishing for lobster and salmon, most have relied upon other industries. Men from Point Leamington have much stronger ties to the logging industry, and have historically worked in the woods for months at a time, harvesting pulpwood for the paper mill in Grand Falls. In recent years, fewer and fewer jobs have been available in the logging industry, leading to higher rates of unemployment in the town. While a small factory was built to

manufacture Superior brand industrial work gloves, production has increasingly been outsourced to China, leading to the loss of many jobs.

While most people that I spoke with in Point Leamington supported the project and were happy to see it moving forward, a few also expressed thinly veiled resentment toward professional fishers living in Leading Ticks and Glover's Harbour, who they saw as being extremely fortunate relative to the displaced loggers in Point Leamington. Will, who had spent most of his life living in the town explained:

Fishermen have had access to things that a lot of the ordinary Joes haven't. They've been bailed out a number of times. They said there would only be a two year program after the fishery collapsed, but then when that was done, they brought in TAGS for another five years and then they followed that with a third bailout. And then there were employment programs like Codskiff, so if you didn't get enough work to get your EI, you could apply for those programs so you could qualify. There always seems to be something for fishers to fall back on. There is a certain justice behind it, but there has been nothing similar for loggers or any sector other than the fishery. It is amazing how whenever there is some sort of crisis in the fishery and you listen to the open line shows and all you hear is fishers or fishers' wives phoning in and talking about the horrible injustice being done against them. Then there are the other people who outnumber the fishermen and have had it even harder, but they don't want to be calling in against them, since fishers are their friends and their neighbours. But, deep down, our views on the fishery are not the same as those you will find in Leading Ticks. We're not fisheries based, so we never really benefited from it. People living here have a hard time making ends meet and if we don't get our Employment Insurance, nobody is going to step in and bail us out. We don't get any help from the federal government, even though the logging industry is in even worse shape.

Will explained that some in Point Leamington see the MPA as another attempt by the federal government to funnel money into Leading Ticks, while those farther inland continue to be neglected and left to fend for themselves. Thus, it had the potential to be a

divisive force, as it would enable Leading Tickles to take advantage of new revenues through tourism and research, while Point Leamington was once again left on the outside looking in. Will had, however, gone as far as to read a bit about the *Oceans Act* when he learned about the MPA and he expressed hope that it might create an opportunity for people living in places like Point Leamington to have more of a say in how policies are made: "It would be nice if you could have a voice through the *Oceans Act* even if you lived in Point Leamington or somewhere else without a big fishing population. I'd like to think that if I wanted a voice, it could be heard, but I don't know how it will work."

Sam who lived in the town of Northern Arm, between Point Leamington and Botwood, also felt that federal policy had tended to favour the interests of fishers, while other people in coastal communities had been neglected.

My ancestors have lived in this area for nearly 200 years too, but they weren't fishing people. They always did other kinds of work, be it logging or construction or whatever. Unfortunately, a lot of the time, those other people get left out and the fishermen are allowed to speak for rural Newfoundland. I have many friends who are fishermen, but what's in their best interests is not always what is in the best interests of everybody else. They're pretty good at complaining though, and a lot of the time they get their way with the government. A fisherman once said to me: 'Do you know what the difference is between an old dog and a fisherman? At least the old dog will stop whining eventually.'

While Sam supported the MPA and hoped it could improve the tourist industry in the area, he also thought that it was important to remember that there are other, sometimes conflicting, rural perspectives that should not be glossed over.

The positions taken by Rick, Will, and Sam cast the notion of community-based conservation in a different light. They provide a reminder that the MPA, which had to that point been driven largely by fishers, may reflect interests that are not necessarily the same as those of non-fishers. Thus, the "empowerment" of "fishing communities" may actually have the effect of excluding some perspectives. It remains to be seen what role, if any, the views of non-fishing community members will be given in the planning processes associated with MPAs and other participatory planning initiatives.

8.5.2 Pressures from Within

The Tickle MPA project also met with considerable resistance from fishery workers living in the towns of Leading Tickle and Glover's Harbour. When I first spoke with Gary Peddle, he made it clear that his attempt to get the MPA off the ground had required him to devote considerable amounts of time to quelling the fears of people who thought that it would interfere with their capacity to earn a living from the fishery in the future. Much like Rick the mussel farmer, many fishers regarded the MPA project as an outgrowth of the Parks Canada NMCA initiative that had been attempted a few years earlier and feared that it would enable the federal government to seize greater control over the ocean and impose new restrictions. Peddle described the challenges that he had encountered in trying to convince people that the MPA was rooted in a very different management approach that could prove beneficial to people in the region:

People here are always afraid of change, and understandably so, because they've had so much forced on them. A lot of people just had their minds set before this even started that it was going to be a bad thing. People get it

confused with the Parks Canada thing. A lot of people lump this in with that. That experience made this much harder. I tell them this has nothing to do with Parks Canada, but you hear that constantly...Some fishermen have been very concerned that DFO will get more control with the MPA, but I just tell them that DFO has total control now so we've got nothing to lose. They can't get any more control than they have right now. DFO does not want to be seen as having total control, and they haven't got total control, not at all. Through the Steering Committee, the people have more control than DFO has. The bottom line is that fishermen have controlling interest, if you want to put it that way. They have the majority of votes, so nothing can happen without their approval. We come up with ideas and get things to happen and it rises up through to the higher levels, rather than ideas coming down from Ottawa, like it always was before. You have to get it into people's minds that they won't be forced to do what they don't want to do. This MPA is a place where fishermen can have a chance to have their say and hopefully the government will listen. At least this way we have at least some say in things. I have had to talk that one through a million times, but a lot of people still won't listen.

George and Charlie, Leading Tickle fishers who had become key participants in the MPA project, both concurred with Peddle's assessment, noting that even they had always been skeptical about DFO's intentions for the MPA. George claimed that he was immensely dubious of the MPA project at first and it was only his trust of Peddle that persuaded him to consider the possibility that it may be a positive change for the area:

A lack of knowledge can destroy a lot of things. To tell you the truth, it took a couple of years to convince me that it was a good idea. I was one of the people who came out against it right away. At first I had my mind made up and I wouldn't listen to nobody. I was nervous, because I knew about the other one. We thought this was the same thing. Word got around some quick. It doesn't take long in a small community. We thought it was bad for us and we'd lose our fishery if we went along with it. People thought there were going to be more and more fisheries closed down...But, Gary is a nice fella and he's after persuading a lot of people. I had nothing against him. I just wasn't so sure about this thing he was standing

for...But he's straightforward. He said he wants it, but he didn't want to force his will on anybody. He said, if you don't want it, that's your choice, but I still say it is a good thing. He made it clear that he respected our decision and he was sincere about it. Most people know that Gary Peddle is a good guy. He's a smart guy and he really cares about the community. I came around from going to meetings and talking to Gary. He kept saying it was a good project and that helped. I eventually decided I'd give it a chance. I asked a lot of questions and finally I came around...There's still a good many fishermen against it, though. Gary was almost going to give it up last year because too many people were against it.

Charlie shared these sentiments, noting that while most people trusted and respected Peddle, many of them, himself included, still didn't completely trust FOC and remained fearful that they could eventually lose control over the waters surrounding the town:

I used to be dead against the MPA. I thought it was the biggest kind of bull. A lot of people in the community are still unsure about it. They are afraid it will lead to the closing of more of the area. I've still got the thought that there will be more of it closed and I will lose more of my fishing area, but, they're telling us that fisher people are going to have the final say over it. Whether they is or they isn't, I don't know. I'm not really against it anymore, but in the back of my mind, I am still wondering whether they aren't telling us everything.

These anxieties were quite apparent to me during my time in the town. At the time, many fishers had grown deeply suspicious of the practice of v-notching, cutting notches in the tails of egg-bearing female lobsters so they can be easily identified at a later time when their eggs may not be visible. V-notching had been encouraged by fisheries managers in Leading Ticks and other locations in the province after being popularized through the Eastport process. It was seen as a key mechanism through which to bring about a new environmentality, transforming fishers into ecological stewards (Agrawal

2005). Many Leading Tickle fishers had become convinced that the practice was problematic and should be abandoned. Some feared that v-notching was detrimental to the health of lobsters and could inhibit their capacity to reproduce. Some complained that they had not been supplied with specialized v-notchers by the government and, as a result, people had been using other objects which were causing serious damage to many lobsters.

Michael who fished in the town explained:

I don't believe in v-notching. We were pressured into it because they were going to raise the minimum size on us if we didn't. But we weren't even given v-notchers when the rule first came in and you couldn't even buy them, so people were using rocks, knives, hatchets, nails,... whatever they could find. One guy even used a hole punch. I think that v-notching is the greatest abuse that was ever done to a lobster. If you cut a piece out of your finger, that won't grow back. You'll always have a scar. Probably if they were only using proper v-notchers, it wouldn't be so bad, but I've seen them with the tail fins tore off of them and chopped right in two with the meat taken off. They eventually gave me a v-notcher, but I told them I didn't agree with it and I didn't v-notch a single one.

The v-notching issue was particularly sensitive because many felt that they had been misled into taking part in the program by fisheries managers. Peddle explained this frustration as follows:

The v-notching thing created a lot of bad blood. There was a big discussion about making the lobster measure bigger, which would have forced people to throw back a lot more lobsters. A lot of fishermen were concerned that change would severely affect them, so we went to DFO to try to find another solution. We said we'd bring down the maximum number of pots from 300 to 200, cut out Sunday fishing, take a week off of our lobster fishing season and go into the v-notching. That's four things we did so they wouldn't make the measure bigger. And sure enough they still did it. It wasn't by quite as much as they said they would, but still, that was a kick in the face. We were trying to do the right thing, but we got burned. Things like that destroy the trust that has been built up with DFO.

An even bigger tension stemmed from the recent federal decision that it would be considered an illegal offence to have a v-notched lobster aboard one's boat. Many felt that FOC fisheries managers were mistaking injured lobsters for v-notched lobsters and this had led to innocent people getting charged in court. Charlie explained:

I don't care what they say. They can't tell what is a v-notched lobster and what isn't. They came up with this stupid law that any harm on the lobster counts as v-notched. Now, it's no trouble for fishermen to get into trouble with the fisheries officers over it. If the lobster has any kind of a mark on him, you can't keep him. For a lot of people, if they see one come aboard with the v-notch on it, they take the knife and cut it out so they won't get into trouble. That's been done. The sad part is that a lot of people have been charged for something we decided to do. Lobsters have other predators after them that could notch them too. They could also do it on a rock. That v-notching is causing people to lose faith on the whole process. A lot of people are complaining and I can understand why. Every day I'm hearing about all these people in different parts of Newfoundland who are getting charged. Instead of giving us a warning, they are charging us. Most people feel angry about that. Fellow fishermen are being charged for no good reason. One fellow had 300 lobsters and they found two and they weren't v-notched properly, but they still hauled him into court. See how DFO treats us. They are so patronizing...I'm not going to do it anymore, and I told them so. It is just a volunteer thing we did for our lobster, but now it has gotten out of control.

Peddle agreed, noting:

A lot of the little DFO laws for lobsters and stuff like that are just ridiculous. That v-notching issue caused so many problems. They think they know a proper v-notched lobster, but there aren't always perfect conditions in the ocean. We got no v-notchers, so everybody used different things. So, what does a v-notched lobster look like? I've seen lobsters that I know aren't v-notched, but I worry that I could get into trouble if they think they are. I know I'm right, but I might throw it away just in case. That's a few dollars thrown away right there, so it isn't easy to do. But, what I say doesn't matter. It's still what they say that matters. They are the ones who decide if I will end up in court. So, now if I get one that I know

isn't v-notched, I will keep it. If they want to take me to court, that's fine. I'll call every fisherman in this community in as expert witnesses. They are the experts, not DFO. This is a big issue, and it all comes back to me, especially because of the MPA, Fishermen expect me to be the one to fix it. When they started this MPA, I knew it wouldn't be easy or glamorous or anything, but this sort of thing makes it a lot harder. There is always conflict.

Many Leading Tickle fishers, including those involved with the MPA, saw the laws surrounding v-notching as an imposition by FOC and an indication that they were not taking the knowledge and concerns of people in the town seriously. Some said that this unwillingness to take their concerns seriously contradicted FOC's stated emphasis on including local knowledge in fisheries management. Even though the v-notching program was administered by a different branch of FOC and technically had very little to do with the MPA, some fishermen saw the v-notching controversy as a sign of things to come and worried about what else they might be asked to do after the MPA formally came into effect.

While Peddle shared the view that the recent emphasis on stringently enforcing the v-notching rule was a mistake, he saw the issue as simply the latest in a long line of complaints that local fishers had had about the MPA and about FOC more generally. When asked about whether the concerns of fishers in the area could ultimately lead to the downfall of the project, he stated:

I have put so much time and effort into it now that I wouldn't want to let it go, but I represent the fishermen and I'm going to do what they would want me to do. There have been plenty of times that I have not gone with things I would like personally, because I knew most of them wouldn't want it. I may try to convince them of my opinion, but at the end of the

day, I want them to know that it is what they want that will ultimately make the decision. I tell people that I'm doing this for them and for fishing and for the area, but fishermen are always suspicious of DFO and that is probably always going to be a problem. I tell people to speak up and we'll stop it right now if they don't want it. I have said: 'this is for fishermen, but if you don't want this, tell me and we won't do it. Just don't wait until everybody has wasted their time and then get upset about it.' A few times, I've just said to people: 'Be honest! Do you want to do it or not?' And for the most part, people have been supportive.

Despite Peddle's relative optimism, internal pressures did ultimately prove responsible for derailing the project a short time later. By the beginning of 2007, the Leading Ticks project was preparing to apply for formal designation as an MPA. According to *Coastal Current* newsletter published by the FOC Oceans Branch in St. John's, a "Regulatory Intent Meeting" was scheduled for May 7th and 8th of that year in the community of Northern Arm. The meeting was a standard matter of course, intended to formalize the boundaries of the MPA and decide on the "regulatory package" that would accompany it (Coastal Current 2006d). The Steering Committee was to produce a "Regulatory Intent Document" which would describe the activities that could and could not take place in the MPA and that document would then be forward to the Department of Justice to start the process of turning draft regulations into permanent regulations (Coastal Current 2007a).

In practice, the Northern Arm meeting took an unexpected turn. After opening remarks from a professional facilitator who had been hired to oversee the meeting, Gary Peddle "took the floor to announce a decision made by the Leading Ticks and Glover's Harbour Fishermen's Committee representatives...that the MPA did not have sufficient

community support to go ahead” (Coastal Current 2007b). Peddle explained that: “there was a general feeling that FOC wanted to go further than Leading Ticks and Glover’s Harbour fishers were comfortable with” and there were serious concerns about “further actions, especially possible restrictions on fishing pelagics,” such as capelin and herring. A further concern was that “once the MPA was created, a new government, new minister or any change of top-level bureaucrats might mean unforeseen changes to the MPA program that would affect all MPAs, including the Ticks” (ibid.). While Peddle praised the FOC staff and the work that had been completed in the area to that point and expressed sadness that there was not sufficient support for an MPA, he was clear and definitive about his statement that the process should be terminated effective immediately (ibid.).

8.6 Chapter Summary

The Leading Ticks case presents another illustration of the new managerial approach being ushered in by the *Oceans Act* and its associated policy documents. Whereas the other cases thus far have discussed the ways in which new responsibilities have been transferred onto industry groups, the Leading Ticks case shows how similar efforts were made to encourage entire communities to participate actively in the management of marine resources. This included the formation of new collaborative efforts to conduct scientific research and overt appeals to the private sector in an attempt to leverage funding with which to support the project.

While many people saw the MPA as an excellent opportunity to breathe new life into a region that had been hit hard by the restructuring of the fishery, the dissent that it eventually encountered illustrates the danger of assuming that a high degree of consensus exists within coastal communities or regions. Despite the economic benefits that the MPA might have brought through increased tourism and fisheries enhancement, suspicion about the possible "hidden agendas" of the federal government led some fishers as well as people in other industries, such as aquaculture to oppose the project, believing that it would prove to be detrimental to their long-term interests. This eventually resulted in the project meeting the same fate as that suffered by the Parks Canada initiative a few years earlier.

Chapter 9 A Master-Planned Bay: Technologies of Government and the Politics of Representation

While the MPA projects in Leading Tickles, Eastport and Gilbert Bay were relatively small in scope, and remained primarily focused on the inshore fishery and the tourism sector, a far more ambitious vision was being developed for Placentia Bay on Newfoundland's southeast coast. The bay has come to be used by a much wider range of maritime industries than any other area in rural Newfoundland and it now contains some of the busiest ports in the country. In 1990, it was identified as the site in Canada most at risk of suffering a major oil spill, and this risk has only increased in subsequent years as new industrial "megaprojects" have come on stream (Brander Smith 1990). Since the late 1990s, efforts have been ongoing to develop an elaborate new planning framework for Placentia Bay in an effort to better protect the marine environment and coordinate interactions between "stakeholder groups" that have a presence in the bay. This vision became even more ambitious in 2005 when the bay, along with a large section of the Grand Banks was identified as one of five "Large Ocean Management Areas" in the country that would be made priority sites under Canada's Oceans Action Plan.

Efforts are now ongoing to transform Placentia Bay into a "Smart Bay," which will make use of cutting edge technologies to develop a new approach to ocean management. It has been suggested that by synthesizing diverse sources of knowledge and electronic data into a single format, it will be possible to develop a governance regime that will be both good for the environment and good for business, because it will

simultaneously: produce more accurate information about ocean processes; increase preparedness in the event of an environmental disaster; improve communication and reduce conflict between key ocean user groups; and streamline the ongoing economic development of the bay. This chapter revisits the three core discourses discussed in the introduction, examining how “the ecosystem approach” the participation of “civil society” and “sustainable development” are being put into practice in the Placentia Bay context. I argue that, while the new management approach being implemented in the bay may prove successful in promoting economic growth and diffusing tensions between some groups of ocean users, it should not be understood as a value-neutral process. To the contrary, it appears that the project’s main objective is to find ways to encourage development, while mitigating environmental risks to the greatest extent possible. It seems much less well equipped to engage meaningfully with normative arguments suggesting that certain types of activities are incompatible or that some forms of development should be curtailed on the grounds that they are environmentally or socially unjust.

9.1 A Brief History of Ocean Development in Placentia Bay

From the point of view of many developers, Placentia Bay has a distinct geographic advantage over other bays in Newfoundland, because it is very deep and is not severely affected by pack ice in the winter. In addition to providing for a longer and generally more prosperous fishing season than was typically enjoyed in most other areas of the province,⁹⁷ these qualities also made the bay accessible to large shipping vessels

year-round. As a result, since the early 1940s, Placentia Bay has been targeted for a variety of large development projects, many of which have had a significant transformative impact on the marine environment and on the people living in the bay.

The first major efforts to develop Placentia Bay came in 1940, at the onset of the Second World War.⁹⁸ The proximity of Newfoundland to Europe led to the selection of the town of Argentia (just outside of Placentia) as the location for a new US naval base to supply, repair and service “the American war fleet and Naval Forces of the Allies” (Cardoulis 1990: 28).⁹⁹ The base had a significant transformative impact on the lives of area residents, bringing in new cultural influences and wage labour opportunities, along with new roads connecting previously isolated communities and a dramatic increase in maritime traffic.

By the 1950s and 60s, Placentia Bay also came to play a key role in the modernist dreams of Premier Joey Smallwood. Several of the more than 350 islands in the bay had been populated since the early 1800s, and all were targeted for relocation in Smallwood’s resettlement programs, along with several mainland communities in the sparsely populated northwestern part of the bay.¹⁰⁰ One of the main ways in which Smallwood’s government was able to persuade people to resettle was with the promise that there would be well paying jobs waiting for them in their new homes when they arrived. To that end, he set about creating fiscal incentives to lure private companies to move into the area. These efforts met with varying degrees of success.

Between 1967 and 1968, a new shipbuilding facility was constructed at Marystown, on the western side of the bay, to build and service trawlers for Newfoundland-based fish processing companies (Thurston 1982; Wright 2001). The site was expanded in the 1970s to enable it to build ocean going tugboats to be sold outside of Canada, and again in the 1980s to service oil rigs (MacVicar 2005). In 1968, Smallwood was also successful in luring the Electric Reduction Company of Canada (ERCO) to open a phosphorous mine and processing plant at Long Harbour, on the eastern side of Placentia Bay. The mine would continue operating for another two decades, but it left behind a toxic environmental legacy which lingers to this day (Legge 1982; Strowbridge 1989; Jackson 1992).¹⁰¹

Perhaps the most elaborate development project encouraged by Smallwood was the construction of an oil refinery, paper mill and petrochemical plant complex at Come by Chance, near the head of Placentia Bay (McNight 1986; McGrath 2002). In practice, however, this project did not work out as planned. The would-be paper mill was abandoned before it ever came into operation¹⁰² and, while the oil refinery had a longer lifespan, it soon suffered the same fate.¹⁰³ Despite tremendous optimism, the failure of the American company that operated the refinery to cope with the oil shocks of the early seventies forced it into receivership with a debt close to two hundred million dollars and the operation was shut down in 1976 (Tulk 1997: 122).

Despite the fact that many of Smallwood's ventures failed, the infrastructure constructed in Placentia Bay during this period, in combination with its natural

geographic advantages, made it an attractive site for the petroleum industry in the decades to come.¹⁰⁴ In 1996, Whiffen Head, just outside of Arnold's Cove was selected as the site for a transshipment terminal to handle oil from the Hibernia and Terra Nova offshore oil platforms operating on the Grand Banks. It began operating in 1998 and underwent considerable expansions in 2000 and 2002.¹⁰⁵ Crude is transported from the offshore platforms into Placentia Bay aboard three specialized shuttle tankers, a journey which typically takes about five days (The Oil & Gas Magazine 2005b).¹⁰⁶ It is then pumped onto shore where it is temporarily stored in one of the facility's six 500,000 barrel holding tanks before being pumped back out onto smaller "second leg" tankers which carry it to market (The Oil & Gas Magazine 2005a). Second leg tankers, which tend to operate under flags of convenience,¹⁰⁷ are usually destined for major refineries on the eastern seaboard, most commonly those in Philadelphia, New York, Boston, Dartmouth and Point Tupper, Nova Scotia and St. John, New Brunswick.¹⁰⁸ It is also common for it to be taken to Portland, Maine, where it is pumped into a pipeline that carries it to major refineries in Montreal, Quebec and Sarnia, Ontario. For the most part, Grand Banks crude is used in higher quality petroleum products, such as jet fuel, gasoline and diesel.

The oil refining industry in the bay has also been reinvigorated. In 1986, the Come By Chance oil refinery, which had been dormant for a decade was sold to a new company called Newfoundland Processing Limited¹⁰⁹ and brought back into production (McNight 1996).¹¹⁰ The refinery has subsequently been sold twice, in 1994 to Vitol, a

large Swiss Petroleum marketing company, and in 2006 to Harvest Energy Corp., an Alberta-based oil company (Bradbury Mullett and Tutton 2006; Squires 2006b).¹¹¹

The Come by Chance refinery is designed for lower quality “sour” crudes, which have a higher sulphur content and it is therefore not able to efficiently process the higher quality “sweet” crude from the Grand Banks.¹¹² Instead, it relies on internationally sourced crude, most of which originates in the Persian Gulf, the North Sea, Russia, Angola, Columbia and Venezuela. The very deep eastern shipping channel, which runs the length of Placentia Bay, enables the refinery to accommodate super tankers, or Very Large Crude Carriers (VLCCs), which can weigh more than 200,000 dead weight tons. These vessels are typically at least 1000 feet long, and are capable of carrying upwards of 2 million barrels of oil (T. White 1996; The Packet Staff 2006). The Come by Chance facility, which is able to refine about 105,000 barrels of crude per day, produces a range of petroleum products including: propane, butane, kerosene, home heating oil, jet fuel, and gasoline, most of which is marketed in North America (The Oil & Gas Magazine 2005a).

In addition to the fishing, fish processing, and petroleum industries, Placentia Bay has also come to be used extensively by a number of new ocean industries in recent years and this activity promises to increase over the course of the next decade. While aquaculture development in the bay has been relatively modest thus far, with only a handful of small-scale blue mussel farms and some experimental cod and sea urchin grow-out projects, the bay features warmer water than much of the rest of the province

and has been identified as a probable area for a major intensification of cod and salmon production in the years ahead.¹¹³ Other forms of economic development are taking hold in Placentia Bay as well. Marine tourism is on the rise with the growing popularity of sea kayaking and an increasing number of cruise ship and pleasure boat visits, as well as the regular running of the Marine Atlantic ferry, which transports both passengers and commercial vehicles between Argentia and North Sydney, Nova Scotia.¹¹⁴ Argentia has also emerged as one of the island's largest shipping hubs, serving as the exit point for shipping vessels carrying many of Newfoundland's exports and the entry point for much of its European and Asian freight.¹¹⁵

9.2 Building a "Smart Bay"

In 1997, the Terra Nova Panel was established to examine issues relating to the anticipated development of Newfoundland's second major offshore oil field. The Panel's final report expressed concerns about the increasing rate of oil tanker traffic along Newfoundland's south and east coasts that would be brought about by the addition of another offshore oil platform and the increased risk of a major oil spill that would follow from it. As a precautionary measure, it recommended that the Government of Newfoundland and Labrador establish an integrated management plan to cover the Avalon Peninsula and Placentia Bay, the areas that were most affected by oil traffic.

While the government accepted the recommendations of the panel, no integrated management plan was established at that time. As efforts got underway to implement the *Oceans Act* in the province in 1998, however, the idea of developing a new planning

framework for Placentia Bay came to the fore once again. Individuals working within FOC soon recognized an opportunity to form a strategic partnership with the provincial government in moving the *Oceans Act* agenda forward. Noting the complexity of the Placentia Bay case, one FOC official based in St. John's explained: "We can't really say that we're doing integrated management until we show that we can do it there."

In 2000, a joint federal-provincial working group was established to oversee the development of an integrated management plan for Placentia Bay. The group, which was co-chaired by FOC and the Newfoundland and Labrador Department of the Environment proceeded to compile existing information about the bay and produced a series of reports to assist with the development and implementation of the plan. These included a detailed bibliography of research done in the region and extensive "biophysical" and "socioeconomic" overviews of the bay to serve as tools for integrated planning. FOC also developed a GIS mapping database which sought to combine scientific and "traditional ecological knowledge" to produce new maps of the bay, highlighting such things as ecologically sensitive areas, historic sites, and economic infrastructure. The agency made much of this information available to the public through a printed "visual profile" of the bay and a CD-ROM.

Even as FOC was working toward the development of an integrated management plan for Placentia Bay, another vision for managing the bay was being developed by individuals working for the National Research Council (NRC) in Ottawa and St. John's, in partnership with scientists based at the Canadian Centre for Marine Communications

(CCMC), a non-profit research institution which is based at Memorial University of Newfoundland. These groups shared FOC's focus on managing interactions between ocean users, but their approach placed a much greater emphasis on high-end technology as the mechanism through which to make this vision a reality.

They intended to create the world's first ever "Smart Bay," in which cutting edge technologies could enable the wireless transmission of information about the marine environment and economy for use in integrated management. Whereas the FOC model initially focused on building support for integrated management in coastal communities, the NRC model sought to take advantage of new technologies to coordinate and simplify interactions between prominent users of the marine environment, improve environmental management, and generate new opportunities for economic development.

This new focus on technology as the driving force behind ocean management soon became a central focus of the federal government's overall planning approach for Placentia Bay. With the release of Canada's Oceans Action Plan in 2005, Placentia Bay, along with the Grand Banks was named as a priority Large Ocean Management Area (LOMA) for integrated management planning. Picking up on the "Smart Bay" concept, the Oceans Action Plan designated Placentia Bay as the site for a new Ocean Technology Demonstration Platform intended to "facilitate wireless transmission of key oceanographic information for integrated management and for modelling systems" and to showcase new Canadian commercial technologies which could then be marketed abroad (Fisheries and Oceans Canada 2005). While the project was initiated by the Liberal

government of Prime Minister Paul Martin, it was given a vote of confidence by the current Conservative government, who pledged two million dollars in new funding to move it forward (Atlantic Canada Opportunities Agency 2006).

9.3 Representations and Interventions

Ian Hacking (1983, 2002), Bruno Latour (1987) and Petter Holm (1996) have all made the argument that attempts to manage or govern the environment are based on the construction of a symbolic system which corresponds to, but simplifies, some real system, which can therefore be brought under managerial control. They have pointed out that while managerial representations can never fully reflect the world they profess to describe, the very act of representing it in particular ways can enable new kinds of interventions that would not have been possible otherwise. The processes of naming and mapping particular spaces brings new understandings into existence and makes new kinds of actions possible. This, of course, builds upon Foucault's insight that even simply labeling particular behaviours as pathological, deranged or unhealthy enables the creation of new kinds of truths and legitimates new interventions by experts into the lives of individuals (Foucault 1973, 1978a, 1978b, 1979).

In spite of the repeated failures of previous attempts on the part of the Canadian federal government to successfully manage the marine environment, the Smart Bay concept conjures up a new hubris. It promises to take advantage of new technologies to produce clearer understandings of marine ecosystems and economies and use this knowledge to determine the "smartest" way in which to manage the ocean. It envisions a

friction-free world in which diverse forms of economic activity can move ahead smoothly and efficiently, with minimal disruption to one another. What will emerge is a living illustration of sustainable development, enabling a wide variety of marine industries to generate economic growth while simultaneously minimizing damage to the marine environment and building new planning mechanisms that will make it possible to arrive at consensus-based decisions.

While these are laudable goals, it seems difficult to believe that this ambitious vision can ever be fully realized. As previous chapters have shown, concepts like "sustainability," "ecosystem," and "participation" are being understood in quite distinct, and seemingly incommensurable, ways by differently positioned actors. The very act of modeling an ecosystem or constructing an integrated management committee inevitably serves to institutionalize some visions of reality while excluding others.

The next three sections examine the representations of the ecosystem approach, participation, and sustainable development that were emerging from the early planning efforts that were underway in Placentia Bay at the time of my research. What is emerging, I argue, is not the tabula rasa that is being promised, but rather a new managerial agenda which is firmly committed to the view that economic growth should remain the key priority, provided that some efforts are made to mitigate the negative environmental side effects that often emerge from it.

9.4 Approaching the Ecosystem

In December of 2004, I attended a “multi-stakeholder” workshop in St. John’s, in which the Smart Bay concept was being unveiled for the first time. The facilitators promised that, if funded, the project (then called the Information Seaway) would revolutionize ocean planning, both in Canada and around the world. Whereas previous eras were characterized by mapping and sampling procedures which were based upon static points in time, the new approach was to be based on a model of “continuous coverage,” making use of remote sensors and other technologies to provide data about the entire ecosystem, including human uses, in real time. It would be “an operational user-driven, end-to-end ocean observing system” that would enable managers to remain ever flexible and capable of rapidly adapting to the non-linear dynamics of marine ecosystems and economies (The Canadian Centre for Marine Communications 2007: A5).

Multibeam bathymetric mapping would be used to generate highly detailed maps of the shape and elevation of the ocean floor and to classify the different types of sediment present on the bottom (ibid: A5).¹¹⁶ This information could then be overlaid with other sources of data, such as scientific and ‘local’ knowledge about flora and fauna, salinity, and currents to produce intricate maps and computer programs which could be used to identify particularly productive or sensitive habitats and determine good locations for such things as marine protected areas, aquaculture sites, underwater cables and fishing activities.

The project would also make use of a number of innovations in the fields of ocean observation and monitoring. New technologies have made it possible to instantaneously transfer information about the marine environment through the use of satellites, sensors, cellular communications and video cameras (Department of Fisheries and Oceans 1987a, 1987b). This allows managers on land to continuously track changes to such things as weather, water temperatures, currents, sea ice concentrations, or the state of aquaculture cages and fish assemblages. The first so-called “smart buoys” were installed in Placentia Bay in the summer of 2006 and more have followed in subsequent years. The buoys are intended to monitor water quality and oceanographic information, such as weather and current flows. These same technologies may eventually allow for the transfer of real time information to investors over the Internet and this, in turn, may help to lure more outside capital to invest in the various industries operating in the bay (The Oil and Gas Magazine 2005b; The Canadian Centre for Marine Communications 2007).¹¹⁷

The Smart Bay would take advantage of new developments in the fields of navigation and vessel detection as well. Electronic nautical charts have dramatically improved the navigational capacity of large vessels, such as oil tankers. They have also made it possible for managers on land to track the movements of these vessels as they occur (Fisheries and Oceans Canada 2001: 15). Furthermore, through the use of satellites, radar, geographic information systems (GIS), and the Automatic Identification System (AIS)¹¹⁸ managers are now able to exercise much more effective forms of surveillance than has ever been the case in previous eras (BBC 2004). Together, these tools promise to

have immediate applications in fields such as vessel traffic management, oil spill response, national defense, and fisheries management.

One such example is the FishNet program which was developed through the Canadian Centre for Marine Communications and put into practice in Placentia Bay and several other areas in eastern Newfoundland. The program equips fishers with electronic devices which monitor their geographic position at all times and enable them to enter detailed information about their catches. The information these devices record can then be put to use in building new scientific, management, and enforcement models. The project is described as “a more holistic approach to resource management,” which “recognizes that every participant in the fishery is a potential contributor of data from which a series of information outputs (e.g. species distribution and marine condition maps) can be generated for use by all stakeholders...” (Government of Newfoundland and Labrador, Department of Fisheries and Aquaculture 2003).

Proponents of the Smart Bay idea went out of their way to stress that communication with “stakeholders” would be critical in enabling the project to live up to its potential. One individual stressed that, in order to make their vision a reality, it would be necessary for all users of the bay to “buy in” to the project and commit themselves to making it a success. He stressed that, in addition to the creation of a new technological infrastructure, the project’s success would depend, in large measure, on the creation of a new “culture” amongst users of the bay. In Agrawal’s (2005) terms, new kinds of environmental subjects would have to be created who would be willing to play an active

part in the process of generating “useful” information. As one of the project’s developers explained:

As we see it, there is a difference between *data*, which is the raw material that we are able to get from our observations and the knowledge that the stakeholders contribute, and *information*, which is the value added project that this project will deliver. At the end of the day, the direction of this project will be shaped by what the stakeholders want to invest in and what they are willing to contribute. The stakeholders will need to become active partners in the process.

By integrating multiple layers of data and knowledge, he argued, it would become possible to produce a more complete understanding of the ecosystem that all could agree on, because they would be based on the best science and local knowledge available. This, in turn, would significantly improve the capacity of managers to predict the future, despite limited resources for scientific studies, and would allow them to determine the best ways of coordinating interactions between prominent users of the bay. It also promises to provide: “Simple access by all stakeholders to data and information in support of effective management and sustainable development of coastal and ocean areas and the safety and security of life at sea” (The Canadian Centre for Marine Communications 2005: 2).

The Smart Bay can be taken as an illustration of what Brosius (2003) calls an “eco-regional conservation project” (2003: 9). These projects, he states, are often characterized by new platforms which allow for the overlaying of “multiple data layers” that can incorporate information drawn from several different spatial scales about such things as: “the distribution of species and habitats, rates of disturbance, land tenure

arrangements, political boundaries and other types of data relevant to conservation planning.” This data is then sent back to what Brosius, following Latour (1987), refers to as “centers of calculation,” such as laboratories or planning offices, where it is processed and used to develop maps, computer programs, and other tools to facilitate the process of governing.

What promoters of the Smart Bay and related projects rarely acknowledge, however, is that these tools do not produce direct representations of the world. Rather, they are the very mechanisms through which particular worlds are created and given meaning, since they inevitably help to make some things visible and obscure others. As many anthropologists, sociologists, and economic and cultural geographers have shown, mapping is an intrinsically political act which involves ongoing processes of selection and omission (Scarce 2000; Brody 2002; Brosius 2003). A single cove, for example, may simultaneously be viewed by different actors as: a potential “safe harbour” for parking a leaking oil tanker in order to contain a spill; a critical herring spawning area; a favourite place to watch the sunset, the burial place of a family pet, or the trigger of a significant childhood memory. Which of these representations are deemed to be legitimate and worthy of being mapped and preserved and which are dismissed as overly sentimental or detached from reality is not an “objective” scientific process, but a very subjective one, the outcome of which will undoubtedly shape what kinds of activities are and are not possible in that space in the future. As Soulé and Terborgh (1999) have observed:

Maps stimulate desires – for territory, for natural resources, for real estate development, even for conservation. Therefore the ideology of those who produce land-use maps is important. If developers are the only people mapping the land's future use, then they control the land-use agenda (Soulé and Terborgh 1999: 13).

The insight that ecosystem mapping is always shaped by particular subjective positions casts serious doubt on the idea it is possible to arrive at the single “smartest” course of action, regardless of how sophisticated the technologies being employed may be. Rather, it is always important to ask which agendas are being served or undermined by particular representations of reality.

Similar arguments have been made about the ways in which knowledge is being mobilized, represented and incorporated into these computerized ecosystem models. Several critical scholars have suggested that, while the idea of including “local knowledge” in management may appear to be revolutionary, and great strides have been made in that direction, the conceptions of local knowledge that are being employed in new management models are often deeply problematic and tend to pay little attention to the social and political context in which that knowledge originated (Brosius 1997; Nasdady 1999; Gray 2002; Fernando 2003; Hayden 2003; Holm 2003; Pottier et al. 2003; Murray et al. 2005; Menzies and Butler 2006; Butler 2006). Some have argued that it is ironic that, while nature has come to be constructed as complex and unpredictable, cultural conceptions of nature are being constructed as relatively simple, orderly, and harvestable through the use of positivistic social science (Holm 2003; Butler 2006).

While the recent interest in “local ecological knowledge” (LEK) and “traditional ecological knowledge” (TEK) has led to an increasing demand for the skills of applied anthropologists and other social scientists, some have cautioned that this newfound recognition often comes at a price, as the deeper context in which that knowledge was produced and embedded is often stripped away in order to get at what are perceived to be a few nuggets of truth. In describing the predicament faced by social scientists who are engaged in what he calls Fishermen’s Ecological Knowledge (FEK) research, Petter Holm (2003) points out that, from the point of view of most scientists:

...raw fishermen’s knowledge, comes in the form of a mixed bag of knowledge items; a huge pile where a few nuggets of genuine insights and well-tested truths are entangled in a wide variety of beliefs, speculations, rumors, misunderstandings, lies, hopes, ideas, exaggerations, superstitions, and anecdotes. The basic problem becomes one of untangling the good stuff from the bad – truths from beliefs, insights from hopes, observations from anecdotes, sound interpretations from politically charged ones, etc...Instead of a broad perspective on knowledge, in which facts, values, culture, politics, morality, practices and social institutions form an integrated whole...From the perspective of fisheries management, the...model offers a mechanism by which the voice of the fishermen can be made to say the same as the voice of science...the gap between polity and nature can be closed; the scientists and the fishermen will agree, and that agreement will be the truth (2003: 26-27).

The implication of this argument is that the embracing of a particular kind of local knowledge by scientists and environmental managers may not amount to a full embracing of other ways of knowing or of the value and complexity of anthropological and sociological knowledge. To the contrary, the way in which knowledge is being solicited in projects like the Smart Bay remains fundamentally technocratic in nature. Other

sources of knowledge are invited, but only if they can be translated by experts into a form that can be integrated into the larger technological apparatus of the project. In this light, local knowledge may come to be seen as a supplement to science, not a potential challenge to it. That way, it can be used to generate hypotheses which can then be tested 'scientifically' or provide data that can be used to enhance existing scientific models and bring them closer to grasping 'objective truth.'

Butler (2006) has gone as far as to assert that, in the case of the knowledge of indigenous peoples, "the "evaluation" of Indigenous knowledge according to non-Indigenous measures and standards" can, in some cases, be understood as "an act of colonization" since those who provide this knowledge have little or no input into the way that it is eventually interpreted and applied by resource managers (2006: 122). She makes a convincing case that local or traditional knowledge must always be shared with full attention to the social, political or historical context in which it occurs (ibid.). While Menzies (2006) shares this scepticism, asking whether: "TEK- and LEK-based approaches can be realized within the context of overarching processes that maintain (capital) accumulation at the center of most forms of societal planning," he maintains what he calls an "operational optimism," hoping that bringing a critical perspective to the study of these alternative sources of knowledge may help to reduce the likelihood that managers will simply "get it all wrong" (2006: 240). Similar positions have been articulated by other scholars who have stressed the importance of articulating the knowledge of marginalized groups, while recognizing that this must be done in full

recognition of the structural pressures that often lead to that knowledge being used in ways that were not intended by those that shared it or the social scientists that recorded it (Sillitoe 1998; Ross and Pickering 2002; Murray et al. 2005)

While I share the hopefulness of these authors that anthropologists may be able to bring about new approaches to studying local ecological knowledge, which pay close attention to historical context and will not shy away from questions of power, I believe that the representations of the marine ecosystem and of local knowledge that are emerging in Placentia Bay are best understood as an extension of the modernist planning agenda that characterized previous eras, and not as a radical critique of it. While the new model is responding to the failures of the top-down scientific management models of the past by incorporating a much wider range of data inputs, it continues to rest firmly on a positivistic foundation. It is founded upon the idea that it is both possible and desirable to produce a totalizing vision of the bay that will be shared and accepted by all and can be used as a neutral planning tool upon which subsequent decisions can be made. Again following Agrawal's 'environmentality' thesis, the Smart Bay project is helping to transform Placentia Bay into a domain that is "fit for modern government" (2005: 6). Through these new technologies, attempts are being made to transform the bay into a completely known space, to such an extent that little or no disagreement about the 'facts' will be possible. It is only once this "baseline" information has been accepted as the undisputed truth that efforts can be made to engage "civil society" to participate in the planning of the bay. It is to this dimension that I now turn.

9.5 Integrating Management

Building upon the central tenets of the *Oceans Act*, planning efforts in Placentia Bay profess to formally incorporate the participation of civil society through what is referred to as “integrated management” or simply “IM.” On a map produced to promote the project in 2003, integrated management was defined as: “the comprehensive planning and management of human activities so that they do not conflict with one another” (Fisheries and Oceans Canada 2003). Efforts to establish a multi-stakeholder integrated management committee to represent the various interests operating in the bay pre-date the emergence of the Smart Bay concept by several years, although the two initiatives have subsequently become very closely intertwined with one another.

In the spring of 2004, prior to the establishment of a steering committee, I carried out a series of detailed interviews with individuals working at FOC in St. John’s in an effort to better understand their goals for integrated management and the efforts they were making to move it forward. While many of those behind the project hoped that it would help to build consensus amongst users of the bay, most accepted that some disagreements may still be inevitable. When asked about how she envisioned the integrated management plan in Placentia Bay unfolding over time, Elaine, a FOC employee who was one of the project’s leaders explained:

We want this thing to be proactive rather than reactive. If it was reactive, you would have your guidelines and your regulations and your rules, but in this case, we want to focus on preparing for things that may happen...Integrated management allows for information sharing. Once it is up and running, the west side of the bay will always know what the east side of the bay is doing...We want to plan ahead and

develop a conflict resolution mechanism, so once we know what the issues are we can start to deal with them. There may be places where people just can't reach an agreement, but at least we will have all of the interests at the same table working together and that is very different than just butting heads on something.

Much like the developers of the Smart Bay concept, she indicated that the project, by its very nature, would require the development of a new relationship between the state and the users of the bay.

The idea with integrated management is not for government to say 'we're going to do this here and we're going to do it this way.' The role of the federal and provincial governments at this point in time is simply to act as leaders and facilitators and get the ball rolling. What we would actually like to see happening is for the people to take ownership. It will be their decision to form a committee. It will be their decision on when to have their meetings and where those meetings will be held. They will decide how the group will be structured. It will no longer be our baby; it will be Placentia Bay's baby. That's not to say that the government would not play a role in that, because we are still a stakeholder in the ocean, but when it comes to the steering committee, we want DFO, the province, the fisheries, the communities, and the industries to be on a level playing field. We would have no more of a voice than any other. And that is the way integrated management is supposed to be. No stakeholder would be any more important than any other...Of course, we also expect the stakeholders to be more responsible for figuring out where some of the long-term funding for the project will come from. Eventually, it will have to be self-sustaining.

This idea that the project could eventually become "Placentia Bay's baby," however, implies that it is possible for "the people of the bay" to arrive at a consensus about what actions should be taken and, thereby, come to speak with a single voice. This image was captured in an article profiling the project in the business section of the St. John's newspaper *The Express*, which was titled simply "Group Think" (Westcott 2005). In this idealized representation, it becomes possible to envision a situation in which responsibilities once borne by the state can be downloaded onto the larger society, as

represented by the integrated management committee, and that society can, in turn, be held accountable for its decisions.

Furthermore, the assumption that all stakeholders can be treated as equal partners in the planning process overlooks the stark power discrepancies between different stakeholder groups that exist within the larger society (Mikalsen and Jentoft 2003). As previous chapters have shown, some groups, such as the offshore petroleum industry and fish harvesters with core status have used their relative power to try to shape the form that public participation takes in particular areas, even if that means excluding those who may have a different agenda, such as fish processing workers or other citizens who are not deemed to have direct economic ties to the sea. Representatives of the offshore petroleum industry have negotiated bilaterally with FOC to ensure that participatory management does not undermine their capacity to operate profitably in marine waters and have also lobbied to have dissenting voices excluded from the process. They have also sought to ensure that major decisions about whether or not to permit development in a particular area will continue to be made through other regulatory mechanisms and will not be subject to the same degree of public participation. Similarly, fisherpersons groups in Leading Ticks and Eastport were able to use their relative power to gain controlling interest in the steering committees governing their respective Marine Protected Area proposals, even though some mussel farmers and other area residents felt that their interests had been marginalized as a result. In light of these illustrations, to ignore the

ways in which such power imbalances are also shaping the form that integrated management is taking in Placentia Bay would seem to be very short-sighted.

Inequalities between users of the marine environment promise to be further amplified by the push to make the project "self-sustaining." With the growing shift toward public-private partnerships as vehicles through which to fund the implementation of ocean management plans, it seems likely that the groups who are capable of providing larger financial contributions will be best positioned to exert their will on the process and ensure that their interests are served by it. As became apparent during the Smart Bay consultation sessions, some powerful stakeholder groups are seeking to restrict access to information generated by the project to those who have a clear financial interest in it, so as to ensure that it is not available to potential competitors or to civil society at large.

Brosius (2003) notes that large ecosystem-based management projects have proliferated around the world in recent years alongside the shift toward neoliberal conservation financing agendas, and contends that this is not a coincidence. He argues that, as large donations from corporations have come to be considered an increasingly important and legitimate source of funds, there has been growing pressure from these groups to develop ways of approaching planning strategically, producing clear measures of progress so that investment can be directed into areas that are believed to offer the most bang for the buck. This approach also enables private donors to identify areas where they do or do not wish to lend their financial support, in order to "maximize" the value or the visibility of their contribution. In this sense, he argues, such planning projects may be

understood as entrepreneurial ventures serving to efficiently target public and private investment in support of pre-determined objectives (ibid.).

Further questions must be asked about just how representative stakeholder representatives actually are. In 2003, FOC hired an independent consultant to carry out a survey to determine the receptiveness of residents of the bay to the idea of integrated management planning. The survey also asked respondents which groups would be best able to represent them on the integrated management committee and this information was used to generate a list of approximately 150 different stakeholder groups. This list was then examined by representatives of FOC and the region's three Regional Economic Development Boards who collectively distilled this number down to about 50. By the time the committee was finally put into place a year later, it had been further reduced to a mere twenty people who were expected to represent all of the interests at play in the bay. At that time, the committee included eight people from various levels of government, two from development boards, one person from the Argentia chamber of commerce to represent all business organizations, one from the College of the North Atlantic to represent all educational institutions, one from the Burin Harbour Authority to represent all harbour authorities, one from the Placentia Bay traffic committee, one tourism operator to represent the tourism sector, one oil industry representative to represent all facets of the petroleum sector, one representative of Inco, the company behind the Voisey's Bay project, one person from the aquaculture industry, two fish harvesters, and the manager of the Arnold's Cove processing plant to represent the fish processing

industry. When asked about the rationale for keeping the committee so small when so many different people lived and worked there and so many different groups were identified in the survey, Elaine explained:

We really want to keep the numbers down, while still making sure that everybody has full representation. But, as far as we're concerned, anything over 20 people is too many...way unmanageable.

The central assumption of integrated management is that all people, regardless of where they come from, can be broken down into discrete, rational and goal-oriented user groups, which are characterized by a sufficient degree of internal consensus that each of them can be represented by a single individual (Wilson and McCay 1998; Wiber 2002). Those representatives, few of whom are formally elected, must see themselves as having clear goals that are shared with all others in the group they are being asked to represent, to such an extent that they feel comfortable making statements and critical decisions on their behalf. Only then can the stakeholder roundtable come to be characterized as a de facto representation of all of the interests at play in the larger society and a legitimate mechanism through which decisions can be made. While small groups may indeed be more manageable, it seems unlikely that twenty people, however well intentioned, can possibly reflect all perspectives. Once again, as marine ecosystems and market economies are increasingly being portrayed as complex and open-ended and in need of being adapted to, the models of society being employed seem to suggest that human interactions can somehow be rendered less complex and more manageable if they are domesticated through new forms of governance. This question of what is and is not deemed to be

controllable and amenable to change through government planning is an interesting area for future research.

The model of society being produced through these small committees is in tension with much recent thinking in socio-cultural anthropology and other closely related disciplines, where anti-essentialist critiques have brought about a “crisis of representation” and have initiated a move away from the bounded notions of community and culture that characterized previous eras (Milton 1996, Wright 1998). More attention is now being paid to the internal struggles, and instabilities that have long been masked by these concepts (Handler 1994; Hall 1996; Ong 1999; Bauman 2001; Roseman 2002; Sinclair and Ommer 2006). Most now accept that communities may be better understood as sites of struggle and contestation, in which a variety of different agendas and understandings converge and diverge. This raises important questions about whether achieving internal, much less external, consensus is a realizable, or even desirable, goal in all cases.

While the stakeholder model may work relatively well for hierarchical organizations that have a clear chain of command such as government departments or private companies, it leaves much to be desired when it comes to less tightly integrated “communities,” such as those defined by geography and history.¹¹⁹ In many of these cases, these deputizing processes serve to reify the power relations already present within each of these groups: managers are asked to speak on behalf of workers, more affluent

fishers are asked to speak on behalf of poorer ones or on behalf of the “fishing community” as a whole, and so on (Mikalsen and Jentoft 2003).

As demonstrated in Chapters 5 and 6, with its primary focus on the interests and concerns of “ocean users” and “mariners” to the neglect of those left on land, integrated planning may serve to restrict access to democratic institutions to an exclusive group of people with clear material interests in the ocean environment. While developers representing multinational interests are being granted an unprecedented degree of access to Placentia Bay, the same cannot be said of historic or indirect users of the ocean, like plant workers and other coastal residents who can no longer claim a material interest in the bay. Much like Suárez de Vivero et al. have observed in the Spanish context, many people living in “fishing communities” now face a “participation paradox” (2007: 323). They note: “During the process by which the number of actors was increased manifold as a result of the development of civil society, the fisher community has lost prominence and importance, fading into the wide spectrum of interests with which it is now competing to make its voice heard” (2007: 319-320).

Although most people living in rural Newfoundland have historically taken advantage of both terrestrial and marine resources to make a living, decades of fisheries restructuring have severed many of these links, creating a class of professional full time ocean users that did not exist previously and leaving others on the outside looking in. As Kasperson (2006) has observed, typically left out of stakeholder committees are:

...those people who do not yet know that their interests are at stake in a particular decision, whose interests are diffuse or associated with a sense of community rather than personal material interest, who lack the skills and access to political resources to complete or who have lost confidence or are alienated from the political process (2006: 321).

It is only by ignoring the historical forces that have shaped who can and cannot make legitimate claims to the sea that it becomes possible to speak of the ocean as a discrete realm, divorced from the problems of the coast, which can be made the focus of mapping and participatory development planning.

9.6 Sustaining Development

Perhaps the boldest claim of this new planning framework is that by producing these new models of ecological and social systems, it will be possible to ensure the “sustainable development” of Placentia Bay. That is to say, it will be possible to produce a management plan which will allow many different industries to move forward, while minimizing harm to the biophysical environment and ensuring that the perspectives of all key stakeholders are considered. Unfortunately, this utopian vision appears to be untenable in Placentia Bay, as the frantic push toward new development is introducing new risks and stoking existing tensions between groups.

The single greatest point of contention surrounds the growing risk of a major oil spill or marine accident due to the heavy oil tanker traffic in the bay. As of 2006, an average of about 550 oil tankers entered Placentia Bay per year carrying approximately 281.8 million barrels of oil (Herridge 2006b). The bay now has far and away the highest number of oil tanker movements of any port in the country (ibid). Oil tankers typically

approach from the southeast, circling tightly around the Cape St. Mary's Ecological Reserve, and travelling up the narrow "eastern channel" toward the head of bay. They are then required to stop at the pilot station just south of Red Island, about 22 nautical miles from their final destination, where they are boarded by a pilot who steers them the rest of the way.¹²⁰

Upon assuming control of the tanker, pilots chart an easterly course before again turning north and continuing toward the head of the bay where they dock at either Come by Chance or Whiffen Head.¹²¹ If the vessels were to continue going straight without making this adjustment, they would crash into the largely invisible Red Island Shoal, which has the potential to cause severe damage to their hulls and could potentially lead to a major oil spill. Nick, who had worked as a pilot underscored the risks associated with moving large shipments of oil in and out of the bay:

If they accidentally went a little bit too far for some reason, either because the weather was bad or a pilot couldn't get out there to meet them, they would be in a very bad situation. There was a tanker that struck Red Island Shoal about four years ago, but luckily it was empty. If it had been a loaded tanker, it would have had the bottom ripped right out.

A second incident took place on December 27, 2004, when the "Harmony," a large second-leg tanker approaching Whiffen Head to pick up a load was steered off course by high winds and stormy seas, lost control, and was scraped along the rocks (Canadian Broadcasting Corporation 2005m). While praising the efforts that had been made over the years to improve the safety of tanker movements, Nick remained concerned about the considerable risks that remained:

This is one of the roughest pilotages anywhere in the world. I've worked in over 60 knots of wind, although they don't allow that now. High winds introduce a huge possibility of error. The weather conditions can get pretty tough out there as well. You see it all, blizzards, freezing rain, fog, you name it. Placentia Bay might be the foggiest bay in Newfoundland. The fog can be so thick that you can't see from one side of the road to the other. On one occasion, the pilot boat was just two boat lengths off of the tanker, but he still couldn't see it.

Nick and many other interviewees noted that a major oil spill in Placentia Bay would be disastrous. It would be worsened by the fact that the current comes in the eastern side of the bay, where a spill would most like occur, and then travels through the islands in the middle of the bay before exiting along the western side. Thus, a sizeable spill in the eastern channel would likely have a severe impact on virtually all coastal areas of the bay. Although many interviewees had been happy to hear about the recent decision of the International Maritime Organization to phase out all single hulled tankers and replace them with much safer double hulled tankers by 2010, some expressed concern about the number of single-hulled tankers that continued to operate in the bay.

Placentia Bay is also affected by oil spills from shipping traffic that is not destined for Newfoundland. It is a short distance from the so-called "Great Circle Route" which is traversed by thousands of shipping vessels annually, on their way between Europe and major ports along the US Eastern Seaboard, the St. Lawrence River, and the Great Lakes. Some of these vessels have developed a tendency to dump their oily bilge water in Canadian waters before venturing into US waters where punishment is more severe. These oil slicks are often carried towards shore by the tide and this has resulted is a

chronic oil pollution problem. While these slicks are not nearly as large as would be likely if a spill occurred within Placentia Bay, so-called "mystery spills" still lead to the deaths of between 100,000 and 500,000 seabirds annually, many of which wash up on the beaches of Placentia Bay and elsewhere along Newfoundland's south coast (Tutton 2001; Brautigam 2006).

The heavy industrial activity in Placentia Bay and the associated risk of a major oil spill are of particular concern since the bay contains an extremely rich marine ecosystem. In addition to having the strongest remaining wild cod population in the province, it also boasts one of the largest bald eagle populations in eastern North America and is an important feeding area for several species of whales, dolphins, porpoises and seals. It is also sometimes visited by endangered species such as leatherback turtles and harlequin ducks and it borders on the Cape St. Mary's Ecological Reserve, which contains numerous breeding colonies of seabirds (Fisheries and Oceans Canada 2003).

Many people living in the Placentia Bay expressed the sentiment that a major oil spill was probably inevitable and that little could be done to stop it, short of dramatically reducing the amount of traffic in the bay. One fisherman, who was interviewed by CBC News stated: "We're always expecting something is going to happen... There's a lot of rocks in Placentia Bay for 'em to bring up pretty solid on" (Canadian Broadcasting Corporation 2005m: 1). When I interviewed the same man some time earlier, however, he seemed content to share the bay with the petroleum industry:

The risk of an oil spill is always in your mind. It can happen. I would still like to see more cleanup equipment in the area, but at least we're more prepared than we used to be. I've been criticized by some people for not speaking out more against the oil industry, but I'm not going to be a hypocrite. I burn oil and gas in my car and my boat and my power saws, and stuff like that. When the day comes that I don't use it, maybe I'll be more critical.

Some were more willing to criticize the industry, and the government for not putting more stringent regulations into place. Ches, a local environmental activist explained:

You have your small spills and then you have your medium sized spills and then you've got your catastrophic spills. What we have to worry about now is the big one. They predict a major one every ten years and we've gone twenty or more with nothing, so it's just a matter of when. You know with the law of averages, something will happen soon...If you ask me, all this participation stuff is just the latest effort by the federal government to allow big business to have their way, but absolve themselves of any responsibility if there is a negative consequence. The government caught onto that about ten years ago. It's easier to have you sign your own death warrant than to take you out and shoot you. They don't have solutions to any problems for the betterment of the marine environment or the people that live in Placentia Bay. It is just a way to make themselves look good.

Ches and others have raised a number of critical questions about the effectiveness of the federal government's oil spill response regime in protecting the marine environment, which operates largely independently of the *Oceans Act* process.¹²² "Canada's Marine Oil Spill Preparedness and Response Regime" was developed in 1995 (Transport Canada 2007). Like most new environmental policies during that period, Canada's approach to combating oil spills is envisioned as a partnership between government and industry (Fisheries and Oceans Canada 1997). It adheres to the Polluter Pays Principle which holds ship owners and oil handling facilities responsible for costs associated with

responding to oil spills and other environmental emergencies (Fisheries and Oceans Canada n.d.; Herridge 2006b). All facilities and large vessels are required to develop an emergency response plan involving a response organization that has been certified by Transport Canada (Fisheries and Oceans Canada n.d.).¹²³

In Newfoundland, the only certified response organization is the Eastern Canada Response Corporation (ECRC), a not-for-profit private corporation with a presence throughout Atlantic Canada (Eastern Canada Response Corporation n.d.). The ECRC retains a large warehouse in St. John's, which is filled with oil response equipment designed to clean up any oil spills less than 10,000 tons that may occur in the province. Spills over 10,000 tons would typically require additional equipment to be brought in from other regions or, in some cases, other countries (Transport Canada 2007) (Canadian Broadcasting Corporation 2006i; Osmond 2006).¹²⁴

Some critics have questioned the decision to leave control over oil spill response to the private sector. One journalist argued that: "Canada's current clean-up system is a hodge podge, with businesses owned by the major oil companies having the primary legal responsibility for cleaning up any oil spills and federal and international agencies available only as backup" (Scofield 1998). Others have argued that the resources provided to deal with a potential spill in Placentia Bay are insufficient for the task at hand, pointing to the absence of key pieces of equipment, such as ocean going tug boats, which are capable of towing tankers that lose power or begin leaking oil on the high seas. The tug boats that are currently used in Placentia Bay are much less powerful and are only

effective in sheltered inshore waters. In the event that a major oil spill were to occur, many important pieces of clean-up equipment would have to be transported from the Canadian mainland, which could take several days. By that time, it could be too late to stop irreparable harm from being done.¹²⁵ Gabe, a local fisherman who had been closely involved in oil spill response discussions, described another instance in which severe weather, in combination with shoddy equipment, had led to a failure of the existing technological infrastructure and created another near miss:

Last April, a buoy broke its chain and drifted across to Merasheen bank and then when the tide and wind changed, it drifted back across the bay to the other side, and they had the nerve to say it couldn't be helped. I said, well you were watching the buoy at Argentia traffic and it is manned twenty-four hours a day. When that buoy moved they should have done something right away, but it was two or three days until they got that corrected. That should have been done right away. If you followed that buoy, you would go right over the reef on Merasheen Bank. I would like to know why it moved. Did it break its chain? If it broke its chain, then the chain wasn't good enough. If it dragged its anchor, then the anchor wasn't good enough. It upsets me that the Coast Guard and Transport Canada wait so long to get things done...We don't have enough oil spill preparedness. We never really had enough. It should be public knowledge what is out there, but it isn't.

Another common criticism is that major multinational oil companies, such as Exxon-Mobil, have been able to take advantage of a loophole in the existing policy framework by contracting out the transportation of oil from their platforms to smaller subsidiary companies, thereby substantially reducing their legal responsibility in the event of a spill. If a very large spill were to occur, these smaller companies would then be able to declare bankruptcy rather than paying the full cost of the response effort and the remainder would have to be borne by the ECRC and the state.

A further risk is presented by the threat of collisions with small fishing boats. Since Placentia Bay had historically had a longer fishing season than most other areas of the province and had a comparatively strong inshore cod fishery during the 1980s, far fewer Placentia Bay fishers chose to train out of the fishery at the time of the moratorium. This meant that many got core status and were granted crab permits.¹²⁶ In 2007, Placentia Bay contained about 500 licensed inshore fishing vessels under 35 feet in length, along with another seventy vessels that were over 35 feet (Sweet 2007). Of these, many operate primarily on the eastern side of the bay. The deep eastern channel which is traversed by tankers makes for exceptional snow crab habitat and is fished extensively. Since tankers typically travel at high speeds and require several kilometres to come to a complete stop, the risk of a fatal accident with a much smaller boat is very real (Sweet 2007).

Fishing vessels over 35 feet in length are required by law to have GPS devices installed on their vessels which enable their whereabouts to be determined at all times by maritime traffic controllers. Because these devices are prohibitively expensive, smaller fishing boats do not typically have them, meaning that those vessels can only be detected with radar or with the naked eye. Since radar coverage can be limited in bad weather, it is not uncommon for small boats to be largely invisible to traffic controllers and tanker captains alike. Cecil, an operator at the maritime traffic station in Argentia explained:

The little guys are the problem, especially during the crab season, when there are so many of them out there. We've had our share of conflicts at that time of year. Sometimes we can see them, but the radar is pretty sensitive, so anything from fog to rain to strong winds can throw it off and we get plenty of all those things. Fishermen can call in on their VHF

radios to ask when tankers are expected to be coming in, but not all of them do that. So, if they're out there, they are doing so at their own risk.

Some fishers saw things in a different light and expressed frustration over what they saw as a regulatory system that favoured the petroleum industry and threatened their capacity to earn a living from the sea. Some argued that the continuing intensification of the petroleum industry had already resulted in damage to fishing gear and several near collisions, and feared that an oil spill could spell the end of the inshore fishery.¹²⁷ Paul, an inshore fisherman, expressed the suspicions that some held toward the petroleum industry as follows:

If you look at all these policies, it tells you one thing loud and clear...that Ottawa is not serious about looking after small-scale fisheries or the ecosystem. It is all about big business. A lot of fishermen are of the opinion that in the mid 80s, when oil got discovered, a bunch of bureaucrats got together with the big oil companies and they came to the conclusion that the best thing to do with all those little fishing boats is to just get rid of them. If you have an oil spill or if the tankers damage fishing gear, all the fishermen have to get compensated for their loss of income. I can say that my living is gone and I can't fish, so they should have to pay me instead. It sounds far-fetched, but it would make sense that the government and the industry would prefer to just pass over the resource to the few big fish companies or large businessmen and let them deal with it. They will just dole out somebody a wage and, if there is an oil spill or if the resource goes and there is nothing left to catch, buddy just gets laid off and he can go to the mainland to work.

He later explained that the 2005 protests, in which inshore fishers blocked oil tankers from entering the traffic lane, while primarily designed to protest crab allocation policies, were also a thinly veiled threat to the petroleum industry that they would not be bullied out of their ancestral fishing territories. It was a stark defiance of the collaborative ethos being promoted through the *Oceans Act*, making it clear that the old confrontational

tactics were still at their disposal and they would not hesitate to use them if they deemed it necessary. This message appeared to be lost on one Come by Chance oil refinery spokesperson, however, who said that she could not understand why fishers were targeting the petroleum industry, when they had nothing to do with the crab dispute: "While we understand that they are upset about what's going on... We're not really sure why it is they're targeting us, because we have nothing to do with the crab fishery" (The Canadian Press 2005c).

Added risks promise to be introduced by the major intensification of tanker traffic that is anticipated over the next decade. A series of feasibility studies have been carried out by a consortium of Canadian, English and Scottish investors with the view to building a new refinery at Southern Head, just west of the Come by Chance refinery. Like Come by Chance, it would depend exclusively on sour crude bought on the world market. The company has decided to move ahead with the project and is presently awaiting the results of federal and provincial environmental assessment processes. If successful, the refinery would become operational by 2011 and would process about 300,000 barrels of oil per day, nearly three times the amount that the Come By Chance facility currently processes. It would also be built with the capacity to easily expand production to 600,000 barrels per day if market conditions are deemed to be favourable (Daly 2006; Harding and Cattaneo 2007).¹²⁸ Although no new oil refineries have been built in North America in the last twenty-five years, growing demand for gasoline and the associated rise in prices helped to stimulate a resurgence of interest in the industry (Canadian Broadcasting Corporation

2006i). New refineries are also being considered for Sydney, Nova Scotia and St. John, New Brunswick (Squires 2006c; Myrden 2007). Discussions have also been held about the possibility of expanding the existing refinery at Come by Chance to triple its current output of 105,000 barrels of oil per day (Canadian Broadcasting Corporation 2006j).¹²⁹

Efforts are also ongoing to develop a new liquefied natural gas (LNG) storage facility at Grassy Point, to the northeast of the Whiffen Head transshipment terminal and very close to the community of Arnold's Cove (Squires 2007). The facility would receive gas shipped in on large tankers, primarily from the North Sea, the Barents Sea, the Persian Gulf and the Middle East and then transfer it onto specialized tankers that would take it to markets in the eastern United States and central Canada (Squires 2006a, Squires 2007). The project has already secured the approval of the provincial and federal governments and construction could begin as early as 2010 (Squires 2006a, 2007, Reuters 2008).¹³⁰

Together, these various projects could bring about a seven-fold increase in the number of tanker movements occurring in Placentia Bay each year (Herridge 2007b). The future development of the Hebron-Ben Nevis and Hibernia South fields and the potential for new discoveries in the Orphan or Laurentian Basin are likely to lead to even more traffic. So too will plans to send large shipments of nickel concentrate from the Voisey's Bay mine in northern Labrador to the soon to be constructed smelting facility in the community of Long Harbour. At peak production, the facility is expected to receive 3 to 4 large shipments per week, each carrying about 40,000 tons of raw material.¹³¹

These expected changes will undoubtedly introduce growing conflicts over ocean space and substantially increase the risk of a catastrophic disaster. The Fish, Food and Allied Workers union has increasingly spoken out publicly about these developments, arguing that local fishers are in serious danger of getting displaced. Earl McCurdy, the long-time president of the FFAW has stated: "People see themselves as being driven out of the job that has sustained them for their lifetime" and added that the forecasted level of tanker traffic "is not compatible with the current level of fishing activity in the bay...so something has got to give" (Baker 2008). Wayne Masters, a Placentia Bay fishermen who often represents the FFAW in planning meetings has expressed similar concerns: "Let's face it, there's just not room enough there for everybody...We've had problems already where fellows have been pulling up crab pots and the next thing you know, they're looking up the side of an oil tanker... Our take is we've been here for 500 years, do we just get pushed aside?" (Herridge 2007b). He further stated that an oil spill would have far more serious consequences for the fishery than it would for the oil industry: "Who's taking the risk here? If they have an oil spill, it's going to cost them money. We have an oil spill, it's going to cost us our livelihood" (ibid.).

While some discussions have been held about the possibility of the petroleum industry offering financial buy-outs to reduce the number of active fishers on the eastern side of the bay, this case illustrates that there may be some cases in which different uses of the bay are simply incompatible. As stated in the introduction, the sustainable development discourse, with its insistence that win-win solutions are nearly always

possible, is silent on the question of trade-offs, be they between development and environmental protection, between different groups of ocean users, or between different ways of living on the coast. Instead it is assumed that risks and conflicts can be managed and diffused if the proper procedures are put into place.

While the mitigating measures introduced through the Smart Bay project and the integrated management plan may go some distance toward easing these tensions and preparing for a potential accident, it seems clear that the risk of a major disaster is steadily increasing, despite these planning mechanisms. The newly formed integrated management planning body will create new opportunities for dialogue among those groups who are granted a seat at the table, but larger decisions about whether new developments should or should not be allowed to go ahead remain largely outside of the participatory process. Instead, development applications are evaluated by various other federal and provincial regulatory agencies on a case-by-case basis, with little or no attention being paid to their cumulative effects on the ecosystem as a whole. While citizens may still engage with these processes through the federal environmental impact assessment process, it is extremely rare for applications to be refused solely because of a lack of public support.

Since participatory planning bodies rely for their legitimacy on the buy-in of all prominent stakeholder groups, their mandate is typically restricted to issues that do not significantly restrict the development aspirations of more powerful industries. As mentioned, senior members of the petroleum industry will only participate in the process

if politically charged issues are left off of the agenda. Thus, while sustainable development may be the central mandate of all *Oceans Act* projects, it seems clear that some projects will only prove to be sustainable themselves if they are not seen as presenting a significant obstacle to economic growth. In that sense, in practice, this new approach does not appear to be dramatically different from the top-down development policies of the past. Much like its forbearers, the Smart Bay project appears to be more concerned with risk management and cost-benefit analysis than with risk avoidance or prevention or social and economic justice.

9.7 Chapter Summary

Ongoing planning efforts in Placentia Bay are relying upon particular representations of ecosystems and of the societies that depend on them. Through these models, it has been argued that it will be possible to produce new understandings of the bay which will make it possible to “weave a golden thread,” allowing a diverse array of industries to create economic growth, while simultaneously creating new opportunities for stakeholder participation and safeguarding the health of the marine environment. This chapter has shown this dream appears destined to fail. While it is not often acknowledged as such, the new “sustainable development” regime appears to be overseeing an unprecedented intensification of risk, both to the environment and to some coastal livelihoods. The argument that ecosystems can be managed in such a way as to satisfy the goals of stakeholders and that win-win solutions are almost always possible does not acknowledge the full complexity of social and ecological systems and ignores the very

real possibility that some uses of the bay may be incompatible with each other. In these cases, difficult political decisions are required, even though they inevitably result in some groups "winning" at the expense of others.

This new approach may, however, be more successful in achieving other, less explicit, objectives. In particular, new ocean management projects seem to be having some success in producing new kinds of ocean-using subjects, such as certain members of the fishery and the offshore petroleum industry, who have been willing to take on new responsibilities that were previously borne by the state. This may, in some cases, allow for ocean activities to be regulated less expensively, and with greater political legitimacy and fewer overt conflicts than were present in previous eras.

Chapter 10 Conclusion: Global Governance and its Discontents

10.1 Economic Restructuring and Ocean Policy

In this dissertation, I have shown that Canada's emerging approach to managing uses of the oceans is very much a reflection of larger trends in global environmental governance. Major United Nations Environment Program summits have articulated a new vision, which emphasizes the need for a more decentred approach to statecraft, in which the private sector and non-government organizations are invited to play a more significant role. This development is itself reflective of a broader shift toward neoliberal policy approaches that has taken hold in many countries since the 1980s.

This new approach has been closely associated with the rise of three interrelated discourses, which have now become fixtures in national ocean policies throughout the world. The first is "sustainable development," which posits that economic growth does not need to be sacrificed in order to bring about a more sustainable way of living. The second is the "ecosystem approach," which is usually typified by the belief that the simple equilibrium models of the past are inadequate for understanding the complex interactions between humans and their surrounding environments. Instead, it stresses the need for new and more elaborate models and new sources of data in order to enable resource managers to better adapt to the unpredictable dynamics of ecological and economic systems. The third discourse focuses on the importance of incorporating the participation of "civil society" into environmental management. It emphasizes the need

for less prescriptive regulations and instead concentrates on "responsibilizing" designated groups of "stakeholders" (Rose 1999). That is to say, developing new mechanisms through which to influence the subjectivities of ocean users so that they will be willing to take on new responsibilities and participate in new forms of self-government. While some have been granted new property rights and exclusive access to marine resources, non-state actors are now being asked to fund, and in some cases carry out, more of the research, monitoring, and enforcement activities associated with their respective industries and to assume a greater share of the risk in the event that their livelihoods are affected by resource shortages or other unforeseen events. In this sense, they are being deliberately transformed from passive recipients of top-down state policies into active participants in new managerial partnerships.

This approach is a stark contrast to the "high modernist" approach, described by Scott (1998), which was employed in previous eras. It was typified by a highly centralized approach to science, planning and enforcement which reified expert knowledge and did not allow for non-government entities to play a significant role in developing or implementing policies. Instead, it emphasized new technological solutions which would make socio-ecological systems legible from above and could be generalized to a wide range of different localities. In many cases, however, these endeavours were eventually undermined by the repeated failures of such systems to conform to the predictions of scientific models. While the three discourses I have described also grew out of larger transnational ambitions, the new managerial approach that they represent

places a much greater emphasis on “empowering” local actors and understanding local specificities and, as such, it appears to allow for greater regional flexibility.

The Newfoundland case provides an interesting opportunity to study this shift in action, because ocean policy reforms were introduced during a particularly dynamic period in the island’s history. The sudden and unexpected collapse of the cod fishery, long the economic foundation of rural Newfoundland, provided a damning critique of the previous management regime and became a catalyst for reform. The economic crisis that followed the moratorium helped to justify the federal government’s decision to bring about a complete overhaul of the way in which oceans are managed. In this sense, the Newfoundland experience with economic and ecological restructuring resembles the cases discussed in Naomi Klein’s (2007) book *The Shock Doctrine: The Rise of Disaster Capitalism*. Klein argues that sudden ecological or economic disasters often create tremendous social disruption and facilitate the imposition of sweeping neoliberal policy reforms that may have encountered greater opposition under different circumstances.

10.2 Instabilities and Tensions

Anna Tsing (2005) reminds us that, while the unique circumstances of particular places do indeed create opportunities for those wishing to promote new regimes of global governance, these same local particularities may introduce instabilities and tensions into this process which may bring about unintended consequences or present opportunities for subversion. Tsing’s concept of “friction” is useful in understanding the ways in which historically entrenched discourses and practices sometimes present obstacles to the

success of these “aspirations for global connection,” even if this does not always take the form of overt resistance (2005: 4). Employing a multi-sited ethnographic approach, I have explored these dynamics in depth, presenting several case studies which have chronicled the preliminary efforts to bring this new vision to life in various locations in eastern Newfoundland and highlighted the opportunities and obstacles that have been encountered as part of that process.

I have also shown that the development and implementation of the *Oceans Act*, Canada’s Oceans Strategy and Canada’s Oceans Action Plan, while strongly influenced by transnational policy discourses, was in some respects uniquely Canadian and so too were many of the problems faced by those bureaucrats who were charged with putting it into action. In addition to having to overcome the hostile feelings that were created by what was widely perceived to be the “mismanagement” of fisheries on all three coasts, they were also forced to contend with a largely disinterested and “land-locked” public and an extremely restrictive fiscal climate which made it difficult to lure federal funding for new programs. Despite Canada’s international commitment to “modernizing” ocean management, the political will to make this vision a reality appeared to be lacking in the early years. The eventual contribution of greater federal support to the oceans agenda, I have argued, had less to do with ocean conservation in general and more to do with the fact that ocean policy reforms were successfully promoted as a mechanism through which to realize a number of specific federal government priorities, such as improving maritime security and developing new commercial technologies.

Shifting my focus to the Newfoundland context, I have demonstrated that, while discourses about sustainability, ecosystems, and participation were clearly developed elsewhere and have, accordingly, been imbued with certain intrinsic meanings, their specific meanings in particular social situations were often negotiated, contested and reshaped by various actors with vastly different and often competing agendas. I have also shown how these ideas have become entangled in longstanding power struggles over who should and should not be allowed to have access to particular spaces, resources, and livelihoods.

These power struggles are perhaps nowhere more apparent than in the fishery. Large fish processing and distribution companies have long sought to position themselves as the rightful guardians of the resource, arguing that they are profitable enough to withstand ecological fluctuations without government assistance and are uniquely capable of delivering the privately financed sustainable fishery that the federal government has long aspired to. This characterization has generally been resisted by independent fishers, however, many of whom have argued that it is they who represent the proud fishing heritage of rural Newfoundland and offer the best hope of ensuring the long-term survival of coastal communities. Representatives of the less affluent inshore sector have fought to retain a foothold in the industry and have engaged in highly visible forms of protest in an attempt to halt the corporate takeover of the fishery, even though many said privately that it was probably inevitable that this would happen eventually.

The irony of this situation, of course, is that independent fishers have themselves been subjected to a variety of professionalization and downsizing programs in recent years, which have widened class divisions in most coastal communities and have served to exclude coastal residents who do not have a direct presence on the water from new decision-making mechanisms. While fishers are being granted unprecedented opportunities to participate directly in policy development and implementation, these new regimes appear to be shutting out many other people who also have strong historical and cultural ties to the sea, but are no longer able to make a direct economic claim to it. I used the example of fish processing plant workers in showing that even people working in what is traditionally considered a maritime industry risk being marginalized by this new managerial approach, despite claims that it will be more inclusive. Since the cod moratorium, most fish processing workers have not fared nearly as well as their friends, neighbours, and family members who fish for a living and they are now having to contend with tremendous uncertainty about the continued viability of their industry in the years to come. Despite their growing vulnerability, however, it does not appear likely that these individuals will have an opportunity to meaningfully influence the new decision-making mechanisms that will govern uses of the sea in the future.

A related dynamic is at work in the offshore petroleum industry, where companies have endeavoured to portray themselves as responsible, efficient and sustainable and have used this strategy to lobby for a less restrictive regulatory environment. Through initiatives such as One Ocean and the CAPP Stewardship Initiative, petroleum companies

have sought to rebrand themselves as environmental stewards who are willing to work with others. They have also engaged in various forms of strategically targeted philanthropy, including the provision of financial support for community-based marine protected area projects. Representatives of the Canadian Association of Petroleum Producers also began working to establish a bilateral relationship with Fisheries and Oceans Canada's Oceans Directorate early on in the process and this has allowed them to put forward suggestions about ways of steering the oceans agenda so that it does not impinge upon their capacity to operate profitably. As part of this process, they have argued for a system of stakeholder weighting that would ensure that individuals and organizations that take an adversarial stance toward industrial development would be effectively excluded from many important discussions. Instead, they have insisted that the process should focus solely on narrow, well-defined goals and should avoid politically contentious issues.

In the case of the marine protected area project in Leading Ticks, the responsabilized group was not an industry, but an entire community. Citizens of the town were expected to do their part to keep the federal MPA project afloat through the commitment of substantial labour (both paid and voluntary) from local residents and through their support of ongoing efforts to raise funds from the private sector. In practice, however, the project came to revolve primarily around a small, but well respected, group of fish harvesters, who retained a controlling interest on the steering committee. Those local fishers who were involved with the MPA voiced a strong desire to enclose this

particular area of ocean space and use it as a vehicle through which to rehabilitate the local fishery and grow the tourism industry. These changes would, they hoped, be enough to ensure that their town would continue to survive well into the future, in spite of the significant obstacles it was facing. Despite the immense popularity of the project's leader, the MPA project angered some people in the area, including a neighbouring mussel farmer, who felt threatened by the initiative and feared that it could ultimately undermine his capacity to earn a living from the sea. The eventual demise of the MPA project was not a result of external pressures, however, but was brought about by an internal rift amongst resident fish harvesters about whether or not the federal government could be trusted to keep their best interests at heart.

Similar conflicts threaten to present serious challenges for the planning initiatives that are now underway in Placentia Bay. While new planning technologies are enabling the resurgence of high modernist optimism about the capacity of managers to understand and predict the behaviour of human-ecological systems and engineer "win-win" solutions, this idealized model fails to acknowledge that ocean planning is inescapably political in nature. Many established and potential future uses of the bay appear to be incompatible with the rampant push to promote new forms of industrial development in recent years, particularly the proposed expansion of the oil refining industry and the staggering increase in tanker traffic that would accompany it. This suggests that policy makers may eventually be forced to make difficult decisions about which interests are going to be

favoured in that area, even though doing so will undoubtedly have significant ramifications for those affected.

What these cases have in common is that they all demonstrate that the attempt to shift responsibility onto non-state actors is not a simple process, but an immensely complicated and politically charged one. The efforts of government bureaucrats to enable certain groups of stakeholders to be active participants in sustainable development are not politically neutral and often have the effect of favouring some interests while excluding others. As Pi-Sunyer (1976) has observed, even though its influence may not always be apparent: "It is the state that takes it upon itself to define and grant legitimacy to a broad range of groups and associations and to establish rules according to which these entities may operate. It may be argued that all state systems, to a greater or lesser degree, select the 'players' and define the 'rules' of political activity" (1976: 66). As my research has shown, some groups, such as the offshore petroleum and fish processing industries, have recognized this from an early stage and they have sought to use their influence to steer the planning agenda in particular ways.

Another interesting finding is that, while many individuals representing designated stakeholder groups were in favour of some aspects of this devolution process, several expressed concerns that the federal government was abdicating many of its historic responsibilities and relying too much on the private sector and they feared that this could have serious consequences. Interviewees from a range of different sectors were keenly aware of the fact that the new approach had come into being in the shadow of

sweeping budgetary cutbacks to ocean science and management since the early 1990s, and felt that this severely limited the capacity of the federal government to fulfil its obligations.

Fishers tended to argue that fiscal restructuring at the federal level had severely eroded the capacity of scientists at Fisheries and Oceans Canada to understand and predict the rapidly changing marine environment. Instead, they were asking harvesters to become agents of the state, producing "data" for use in fisheries management models and developing new mechanisms through which to police each other and ensure that they complied with regulations. While some said they were happy to do their part, many worried that they could not perform this role effectively without considerably more federal support. Some also feared that this arrangement had the potential to leave fishers highly vulnerable to downturns in the health of key commercial species, like snow crab, about which very little is known. While some took the stance that prediction was virtually impossible, most believed that much more could be done to ensure that management decisions were based upon the best available information. Particularly important were long term studies, which simply could not or would not be funded by harvesters themselves or, as in the case of Leading Ticks, through corporate philanthropy. Many of those interviewed welcomed the opportunity to share their knowledge of the ecosystem with fisheries managers, but some said that this invitation seemed hollow, given that so few resources were being devoted to fisheries management at the federal level. This suggested to many that the move toward participatory forms of management had more to

do with downloading and cost cutting and less to do with a genuine desire to share power. Experiences like the lobster v-notching controversy in Leading Ticks, in which local consensus had been completely ignored, were taken by some as further evidence that the federal government's openness to the idea of including local knowledge was only superficial or at least highly selective, as their perspectives seemed to only be meaningfully considered in cases where they supported the existing managerial approach.

Several of those resource developers interviewed expressed similar concerns, although they often framed them quite differently. Both petroleum company representatives and aquaculturists stated that they believed that severe cutbacks to government science budgets had resulted in a situation in which the federal government now lacked the expertise needed to effectively determine what level of development is harmful to the marine environment. Some feared that this uncertainty, in combination with vague new policy ideals like the "Precautionary Approach" and the "Polluter Pays Principle," could be used as a justification for curtailing their activities and this could lead to costly delays. Some feared that it might also result in a tendency to favour the interests of industries that are perceived to be more benign, such as tourism or even the inshore fishery. While most said they agreed with the move toward less regulation, several said that they strongly believed that the federal government continued to have important roles to play in carrying out research, being an "honest broker" between different stakeholder groups, and making difficult decisions when consensus wasn't possible.

10.3 Knowing Our Place: Anthropology and the New Environmental Management

In the winter of 2004, I was invited by a contact at Fisheries and Oceans Canada to participate in a workshop in the town of Arnold's Cove to discuss the ongoing efforts to develop an integrated management plan for Placentia Bay. The workshop was the first of its kind and was well attended by people from a range of different communities and industry groups. After a series of short presentations about the work that had been done to that point, the facilitator announced that she would be breaking us up into discussion groups, and asked us to proceed immediately to the table that corresponded with the coloured dot on each of our name tags.

After making my way through the crowd to get to my table, I began to realize what she had in mind. It seemed clear that what we were experiencing was the first attempt to put the stakeholder model into action. To my right was a table consisting solely of fish harvesters. To my left were those representing heavy industries, such as oil refining and mineral processing. Across the room were representatives of municipal governments and development agencies. My group consisted mainly of academics from various science disciplines at Memorial University and the College of the North Atlantic, along with two environmental NGO representatives and me.

Once everyone had settled into their seats, the facilitator announced that we should take twenty minutes to determine our group's priorities for integrated management and then report back to the others. Needless to say, my group did not get very far. One fisheries biologist started the discussion by announcing that we in the "research

community" were not like other stakeholder groups, in that our role was to lend our scientific expertise to the project so that the other stakeholder groups could make decisions based on the best available information. While most nodded in agreement, I could not help but question this characterization, asking whether we might not also have a responsibility to ask difficult questions about how particular issues were being framed and how different perspectives were being represented (or not represented) in the plan.

A report of an impending blizzard brought an abrupt end to the workshop, and we were mercifully spared from having to arrive at a clear consensus to share with the other groups, but this brief interchange proved to be an eye-opening experience for me. I have come to believe that my inability or unwillingness to share in the conception of self being put forward by my academic colleagues speaks to a larger dilemma that is being encountered by a great many environmental anthropologists in recent years. In the high modernist resource management regimes of the past, anthropologists, like the rural people they tended to work with, often found themselves on the outside looking in.

Environmental management was to be based solely upon scientific knowledge, and other cultural representations of nature were generally dismissed as irrelevant or, at best, anecdotal. In this exclusionary climate, many anthropologists positioned themselves as critics and activists, pointing out the short-sightedness of environmental planning initiatives and staunchly supporting the rights of the people whose lives were being manipulated by distant resource managers.

With the emergence of this new, more decentred approach to environmental management, the relationship between social scientists and environmental managers appears to be changing. Heightened efforts are now being made to incorporate a diverse array of perspectives and knowledge-bases into environmental management, with the assumption that doing so will lead to better representations of ecosystems and improved managerial effectiveness and legitimacy. As a result, anthropologists and their fellow social researchers are finding that our skills are suddenly in demand. With our expertise in understanding cultural knowledge and patterns of behaviour, we are seen as having the capacity to mobilize and code knowledge for use in management models and to devise strategies through which to mitigate conflicts between stakeholder groups.

While this may represent a new opportunity for social research to influence policy, we must be cautious about how much faith we put in the capacity of this partnership to alter existing power relations. I believe that anthropologists must not be content with simply interpreting and integrating local perspectives into larger managerial frameworks. We must also work to draw attention to the broader context in which those perspectives have taken shape. Committing to retain a critical perspective in our research does not, however, mean that we cannot find creative ways of engaging with these new approaches. Like Brosius (2003), I believe that there are opportunities for anthropologists to “move beyond generalized statements of concern about the politics of legibility and high modernist ecology” and “try to specify a bit more precisely what is at stake in the recent turn toward place-making (and place-effacing) practices of ecoregional conservation

planning” (2003: 27). With our history of carefully examining the political struggles at play in particular settings, anthropologists are well positioned to articulate a broader vision which plays close attention to the historical dynamics and power relations which shape who does and does not have access to particular spaces and resources (Pi-Sunyer and Thomas 1997; Buanes et al. 2004; Menzies 2006; Büscher 2008). In this way, it may be possible for anthropological methods to play a more meaningful role in analyzing and amplifying marginalized perspectives so that they can eventually exert greater influence over the goals and not simply the technologies of power.

Notes

Chapter 1

¹ A number of significant fish spawning areas on the Grand Banks protrude into international waters and have historically been fished heavily by foreign trawlers.

² The moratorium affected areas along the north and east coasts of Newfoundland and most of coastal Labrador. A year later, it was extended to include additional stocks along Newfoundland's south and west coasts and in the Gulf of St. Lawrence. In addition to cod, the moratorium was also applied to Atlantic haddock, American plaice and yellowtail flounder.

³ In the 1970s, OECD membership consisted of: Australia; Austria; Belgium; Canada; Denmark; Finland; France; Germany; Greece; Iceland; Ireland; Italy; Japan; Luxembourg; The Netherlands; New Zealand; Norway; Portugal; Spain; Sweden; Switzerland; Turkey; the United Kingdom; and the United States. More than two decades later, it expanded its membership to include: Mexico (1994); The Czech Republic (1995); Hungary (1996); Poland (1996); Korea (1996); and The Slovak Republic (2000) (Organization for Economic Co-operation and Development (2005).

⁴ The phrase "sustainable development" first came to prominence in the 1980 "World Conservation Strategy," which was co-authored by the United Nations Environment Program, the World Conservation Union (IUCN) and the World Wildlife Fund (Lele 1991).

⁵ The report is also commonly referred to as "The Brundtland Report" after its chairperson Gro Harlem Brundtland, who was the Norwegian Prime Minister at the time.

⁶ The "Polluter-Pays Principle" was first articulated at an OECD conference in 1972 (Johnston and VanderZwaag 2000). It demands that resource users must pay fees to fund response and restoration activities in the event that their actions cause damage. Under this framework, responsibility for funding environmental programs gets shifted away from government departments and placed into the hands of those private companies or investors who benefit economically from the use of those environments. In this way, environmental costs are internalized into the development process and become simply another cost of doing business.

⁷ These ideas reflect those espoused in the "Washington Consensus," which carried a great deal of influence under the Reagan and Bush Administrations in the United States during the 1980s and early 90s (Finnegan 2003). This term is frequently used to describe the shared commitment to: "deregulation, privatization, 'openness' (to foreign investment and imports), unrestricted movement of capital, and lower taxes" by the US government and a number of Washington-based international agencies, including the World Bank and the IMF, that emerged during this period (Finnegan 2003).

⁸ A small group of countries, led by the United States and Switzerland, have outwardly resisted the idea of a fixed commitment (Johnston and VanderZwaag 2000).

⁹ While the ecosystem concept did not emerge until this period, the term "ecology" came into being several decades earlier. It was first used by German biologist Ernst Haeckel in 1866 (Goodland 1975).

¹⁰ McCay has argued that the very notion of "adaptive strategy" has strong ties to "consumer choice theory" in microeconomics and tends to produce a very limited view of human beings. In place of this "systems ecology" she advocates a "people ecology" which would pay greater attention to "the role of individuals and other social units, rather than systems, in managing relations to resources and to environmental hazards (1978: 403).

¹¹ This marked a departure from the cultural ecology work carried out by Julian Steward and Leslie White between the 1930s and 1960s, which showed a greater interest in the dynamic relationship between environmental and social change (Orlove 1980; Netting 1982).

¹² These authors were later critiqued for presenting virtually all cultural phenomena as adaptations to environmental forces. Repeated illustrations of seemingly maladaptive or environmentally destructive behaviour appeared to undermine their universalistic models (Orlove 1980; Netting 1982; Milton 1996). They were also challenged for presenting a relatively static and homogenous view of culture which downplayed social conflict, for failing to notice that local populations are embedded in larger social networks, and for reducing human beings to passive reactors to an external "nature," thereby ignoring the capacity for human practices to reshape the 'natural' world (Netting 1982; Milton 1996). The 1980s saw a gradual move within ecological anthropology toward descriptive and historically specific "processual" approaches, which sought to examine ecological relationships across space and time (Orlove 1980; Netting 1982; Hvalkof and Escobar 1998; Little 1999; Scoones 1999).

¹³ Ironically, this new humility has come into being at the same time as other developments in biotechnology and cybernetics have heightened optimism about the capacity of human beings to reshape "natural laws," to suit their desires (Haraway 1991; Escobar 1994, 1999; Fischer 1999).

¹⁴ The concept of "government at a distance" was first developed by Bruno Latour (1987) and was subsequently explored in depth by Miller and Rose (1990).

¹⁵ This view has deep roots in "Game Theory," which became highly influential in economics, biology, psychology and other disciplines during this period (Lansing 2003). It is rooted in the idea that individuals will tend to try to maximize their own advantage in their interactions with other people.

¹⁶ Similar arguments have been made by a range of other anthropologists, geographers and political scientists (Storper 1997; Bebbington 1999; Hecth 2004)

¹⁷ The word "upstream" is typically used to refer to activities associated with the production of crude oil reserves, whereas the word "downstream" refers to the refining of crude and the production and distribution of petroleum products.

Chapter 2

¹⁸ Fife (2005) has argued convincingly that these non-traditional sources of data have emerged as a critical component of contemporary ethnographic research.

¹⁹ The vast majority of the industry's local employees work in more "operational" jobs.

²⁰ The Eastport Peninsula project has subsequently received formal designation as an MPA under the *Oceans Act* (Davis et al. 2006).

Chapter 3

²¹ Very little seabed mining has taken place to this point, since the discovery of new land-based deposits has reduced demand and kept prices relatively low (Huebert 1996-7).

²² At the time, fish stocks beyond 200 nautical miles were not thought to be in need of regulation, because they were largely beyond the reach of existing fishing technologies (Holland and Bernal 2002).

²³ In addition to conventional oil and natural gas resources, there is tremendous interest in the potential wealth to be gained from gas hydrates or "clathrates," ice-like crystals formed by pressurized gas molecules, usually methane (Calvert 1998). Some estimates have suggested that methane clathrates contain "more than two to three times the energy potential of all known global reserves of gas, oil, and coal combined" (Swing 2003: 4). In 1995, the US Geological Survey estimated that "methane clathrates under US jurisdiction contain enough gas to supply the country's energy needs for two millennia at current consumption rates" (ibid.). Significant exploitation of gas hydrates is unlikely to occur for at least two decades, however (ibid.). There are still concerns that extracting gas hydrates could cause undersea landslides and could "trigger a dramatic acceleration in global warming if their trapped methane was released" (Innovations Report 2005). In 2003, Canadian scientists "made the world's first successful production of natural gas from frozen methane..." in the Mackenzie Delta in the Northwest Arctic (Spears 2003).

²⁴ The question of what constitutes a "sedentary species" was at the root of a highly publicized dispute between Canada and the US over whether or not Canada had the right to manage fishing for Icelandic Scallops beyond its 200 mile exclusive economic zone. Although the scallops rarely move, they do have the ability to propel themselves as much as 20 or 30 metres to escape predators. Doing so requires them to expend a great deal of energy, however, and they must rest for at least a day before they can move again (Van Dyke 1995).

²⁵ The technical rules for continental shelf claims were released in 1999. Russia submitted the first claim in 2002, although it was promptly rejected, due to insufficient data. The country has subsequently resubmitted its claim, but no decision has yet been reached (Stonehouse 2003).

²⁶ Developments beyond the EEZ become subject to a tax of one percent of the value of production in their fifth year of operation, and this rises by one percent per annum to a maximum of seven percent in the twelfth year and in each year that follows (Chircop and Marchand 2000: 7).

²⁷ At this time, three new agencies were created to oversee the implementation of the agreement. The International Seabed Authority was charged with the task of developing regulations for deep sea mining. The Commission on the Limits of the Continental Shelf was given the job of overseeing and evaluating the efforts made by countries to delineate their continental margins. The International Tribunal for the Law of the Sea (ITLOS) was created to develop mechanisms for resolving disputes that arose between nations as part of these processes (Lane and McConnell 2003).

²⁸ Some recent evidence has suggested that the removal of cod from the ecosystem may have permanently altered its very structure, thereby making it very difficult for cod to recover (Auld 2005).

²⁹ One striking illustration of the impact that human waste disposal practices have had on the ocean environment is the so-called "Great Pacific Garbage Patch," a one hundred million ton collection of garbage that has been trapped in the central pacific by the currents of the North Pacific Gyre (Marks 2008).

³⁰ Strong is also famous for coining the phrase "ecodevelopment," in the early 1980s, which was a forerunner to the WCED's "sustainable development" concept (Bernstein 2001: 43).

³¹ One of the most recent of these studies identified the cod collapse as a model case of what it calls "non-linear degradation." This refers to a situation in which "a problem that has been going downhill gradually reaches a 'tipping point,' and changes begin to happen very suddenly (Cairns 2004). Cod was also cited as the paradigmatic case of fisheries management failure in the World Resources Institute's 2005 Millennium Ecosystem Assessment (World Resources Institute 2005).

³² Prior to that point, Canada had unilaterally declared a 12 mile territorial sea under the *Territorial Sea Act* in 1964 and had claimed the fishing powers associated with an EEZ in 1977 with the *Fishing Zones Act*, but had not declared a 24 mile contiguous zone. The relevant provisions of these acts were later incorporated into the *Oceans Act* (Huebert 1996-7).

³³ One of these AOI's, "Gabriola Passage," on the British Columbia coast, was eventually abandoned, due in part to unresolved questions about how it would be reconciled with outstanding Aboriginal land claims in the region.

³⁴ The other specific commitments made under the Oceans Action Plan are: to develop ballast water exchange regulations to defend against invasive species; to strengthen marine pollution regulations; to enhance aerial surveillance in an effort to crack down on sea-based sources of pollution, such as oily bilge water dumping; to support newly passed legislation to protect birds oiled at sea; and to support seabed mapping as a way to "increase scientific understanding of the physical environment and associated habitats" and identify "areas in need of protection" (ibid.).

³⁵ The United States is the last of the world's major economic powers to have not yet ratified the agreement.

³⁶ Among the other countries expected to make extended continental shelf claims under UNCLOS are: Australia, Argentina, Brazil, Iceland, India, Ireland, Madagascar, Mexico, New Zealand, Russia, The United Kingdom, and the United States (Bedi 1999).

³⁷ At present, the area of the continental shelf under Canadian jurisdiction is about 4.5 million square kilometres.

³⁸ The shelf on the Pacific Coast extends significantly less than 200 nautical miles, and would not be affected by this provision.

³⁹ These potential riches would, however, likely be subject to the "common heritage" principle of UNCLOS, and taxed accordingly (Chircop and Marchand 2000).

⁴⁰ An emphasis on maritime sovereignty and security has continued to form the core of the ocean policy approach emphasized by the Conservative Government under Prime Minister Steven Harper, which assumed power in 2006.

Chapter 4

⁴¹ The exact location of Cabot's landing place remains a mystery, although several different hypotheses have been considered. There are even some that have argued that Cabot did not land in Newfoundland at all, but on Cape Breton Island, in what is now Nova Scotia (Pope 1997). While Cabot is believed to have been the first European to stake a formal claim in Newfoundland, another group of European voyagers preceded his arrival on the island by more than four centuries. Archaeologists have found evidence of a Norse settlement at l'Anse aux Meadows on the northwest coast of Newfoundland, dating from as early as 1000 A.D. The settlement persisted for about ten years before eventually being abandoned, probably due to harsh weather and violent encounters with indigenous peoples (Ingstad and Ingstad 2001).

⁴² The term "discovery" is perhaps somewhat misleading, since the island had already inhabited by indigenous peoples for millennia prior to Cabot's arrival. While relatively little is known about the Beothuk people who were living in Newfoundland when Cabot's crew arrived, archaeological and ethnohistoric evidence suggests that they lived a nomadic existence, following caribou herds into the interior of the island during the winter and migrating to the coast during the spring and summer to harvest salmon, shellfish, seals, seabirds and their eggs, berries, and other vegetation. Most estimates suggest that, when Europeans arrived in Newfoundland at the turn of the sixteenth century, there were fewer than two thousand Beothuk people living in small bands across the island. As the numbers of European fishers visiting the Newfoundland coast each year increased, the Beothuk people retreated farther inland, choosing to have very little contact with the new arrivals. By the dawn of the nineteenth century, however, very few remained. For the most part, this was due to the introduction of European diseases, starvation and malnutrition resulting from the loss of access to vital harvesting locations along the coast, and sporadic attacks by English settlers, particularly along the northeast coast of the island. The last known Beothuk survivor was a young woman named Shawnadithit, who died of tuberculosis in St. John's in 1829 (Marshall 1989; Pastore 1992, 1998).

⁴³ Some residents of the Cupids site went on to found a colony in present-day New Hampshire, while John Calvert (Lord Baltimore), the founder of the Ferryland Colony, opted to divert his efforts to the Chesapeake Bay in present-day Maryland (Cell 1982; Lahey 1982)

⁴⁴ These boundaries were shifted slightly in the 1783 Treaty of Versailles, but otherwise remained unchanged through until 1904, when they were finally extinguished.

⁴⁵ Immigration to Newfoundland came to a virtual halt during the following century, as most new North American settlers opted instead for more fertile land and better employment prospects in Canada and the United States. The "founder effect" that ensued has made some parts of the province havens for human genetics research in recent years (Atkinson 2000; Staples 2000; Industrial Research Assistance Program n.d.).

⁴⁶ More extensive descriptions of the history of the Newfoundland inshore cod fishery are provided by Wade (1973); Alexander (1977); Ryan (1980); Sider (1985); and Sinclair (1985).

⁴⁷ Most came from Conception, Trinity, Bonavista, and Notre Dame Bays on the north coast of Newfoundland, but some people from the less prosperous areas closer to the head of Placentia Bay took part as well.

⁴⁸ One of the clearest illustrations of this perspective was provided by economist W.W. Rostow (1960) in his book *The Stages of Economic Growth: A Non-Communist Manifesto*. Rostow took the position that all economies must pass through a series of stages in order to become modern and industrial societies. He argued that development and modernization were inevitable and that traditional modes of subsistence were backward and should not be encouraged.

⁴⁹ The Newfoundland government had itself constructed a fisheries science centre in 1931, but it burned down soon thereafter (Wright 2001).

⁵⁰ A previous referendum on whether to join Canada had failed by a convincing margin in an 1869 general election. A second vote held earlier in 1948 saw independence win by a narrow margin over the other two options of Confederation with Canada and continued rule by Britain. On the second referendum, the least popular British option was dropped from the ballot, and most of its supporters sided with the Confederation side, giving them the narrow majority. To this day, some Newfoundland nationalists insist that the 1948 vote was tampered with. Another common suggestion is that Britain made a secret deal to transfer Newfoundland, with its rich resources and strategic position (both from a military and a trans-Atlantic aviation perspective), to Canada in exchange for the forgiveness of some 8 billion in loans that Britain had borrowed to finance the war effort (MacGregor 2003b).

⁵¹ The one exception to this rule was the schooner fishery, which operated out of St. John's and several ice free ports on Newfoundland's south coast, such as Burin and Grand Bank in the nineteenth and early twentieth centuries. The large vessels would carry smaller ones (dories) aboard them. Those dories would be launched each day to do the fishing, and would return their catches to the larger vessels to be stored in their cargo holds (Andersen 1999).

⁵² The majority of the resettled communities were located on islands in Placentia, Bonavista, and Notre Dame Bays, and as well as on the south coast of Newfoundland and the coast of Labrador.

⁵³ Interestingly, a similar vision was employed by the federal government in the aftermath of the groundfish moratorium in the early 1990s, as individuals were provided with incentives to resettle to larger centres in Newfoundland or, more commonly, in mainland Canada. The restructuring programs that followed the groundfish moratorium are case is discussed in detail in Chapter 5.

⁵⁴ It should, however, be noted that the 1961 figure is somewhat misleading because it does not reflect the many "part-time" harvesters who were not registered.

Chapter 5

⁵⁵ Most experienced workers in eastern Newfoundland qualified for between four and five years of payments, due to the region's heavy reliance on the cod fishery.

⁵⁶ All three countries made ITQs a central component of their fisheries policies during the 1980s (McCay 1999). Advocates of the further privatization of fisheries resources have long held up these examples as models of efficient and sustainable fisheries, although critics have highlighted the negative social and ecological consequences that have sometimes resulted (Copes and Charles ; Palsson 2006; Ommer 2007)

⁵⁷ The most notable exception to this rule was the lobster fishery, where fishers were regulated only by the length of the fishing season and the number of traps allocated to each harvester (Davis et al. 2006).

⁵⁸ Similar positions have been articulated by a variety of NGOs in Atlantic Canada, most notably the Coastal Communities Network.

⁵⁹ The term "part-time" was introduced by DFO in 1991 and was restricted to those working as crew members on the vessels of other harvesters who did not have licences of their own. By 1992, however, it was announced that the concept of part-time status would be phased out entirely (Schrack et al. 1992: 351).

⁶⁰ Some have noted that female fish harvesters were disproportionately represented in the apprentice category, since many entered the fishery later than their male counterparts. This put them in a much more vulnerable position moving forward (Neis and Grzetic 2001; Grzetic 2004; Power 2005).

⁶¹ Very similar findings were reported by Power (2005)

⁶² Dan and many others in Canada still use the abbreviation "DFO" (Department of Fisheries and Oceans) to refer to Fisheries and Oceans Canada, even though the agency has used its new name "Fisheries and Oceans Canada" since the early 1990s. Thus, the abbreviation "DFO" will continue to appear in this and other quotations.

⁶³ This practice is by no means new, as some women have worked on fishing boats for two or more decades (Porter et al. 1990, Grzetic 2004)

⁶⁴ In 2006, a court concluded that it was illegal for DFO to require harvesters to fund scientific studies and it remains to be seen what impact this decision will have on established practices.

⁶⁵ Some fishers were fearful that this uncertainty could be magnified by the ongoing impacts of climate change. The Northwest North Atlantic ecosystem is said to be highly vulnerable to changes in ocean temperature, salinity, and currents that may result from the increased fresh water content caused by melting polar ice caps (Hamilton and Seyfirt 1994).

⁶⁶ As part of the AFPR process, however, DFO and the FFAW did organize a series of consultation sessions in 2004 to address the issue of trust agreements in the industry and the future of the *Owner-Operator and Fleet Separation Policies*.

⁶⁷ A series of protests, which appeared to be modeled on those carried out in Newfoundland, broke out in Cape Breton, Nova Scotia later that summer to oppose a proposed cut to crab quotas in that area. Between July 4th and July 11th, crab fishers blocked a tour boat, a shipping lane and access to the Louisbourg National Historic Site, which is a major tourist attraction (Grant 2005, Shannon 2005, The Canadian Press 2005b).

Chapter 6

⁶⁸ Salmon and herring were generally cured locally and sold to American buyers who frequently visited Placentia Bay and often paid for the fish with gold coins. The bay soon became renowned for having one of the strongest herring fisheries on the island. At the turn of the century, one American company went as far as to "set up a business on Sound Island to purchase and 'Scotch cure' herring" on site" (Tulk 1997: 29). The commercial lobster fishery in Placentia Bay became active in the 1870s, making it the first area of the province to process lobster. By the turn of the century, the inner part of Placentia Bay was dotted with dozens of small lobster canneries, many of which persisted until the resource declined suddenly in the 1930s (ibid.)

⁶⁹ Biological studies of the fishery in Placentia Bay have been carried out by Hutchings et al. (2002) and Windle and Rose (2007)

⁷⁰ This was likely a result of the fact that the bay is very deep and has a particularly rocky ocean floor, both of which make trawling more difficult. The one exception to this rule was the extremely bountiful cod fishing area around Cape St. Mary's, in the southeastern part of the bay, which was a major focus of attention for both foreign and Newfoundland-based trawlers.

⁷¹ They do, however, note that work stoppages could prove much more costly to processing companies in a more capital intensive industry (Fishery Research Group 1986: 55).

⁷² The fish is beheaded, gutted and frozen at sea before being shipped in standard ten pound blocks to Newfoundland where it is processed into fillets.

⁷³ Species processed at the plant at that time, included cod, redfish, American plaice, yellowtail flounder, and grey sole.

⁷⁴ Research carried out through this partnership was responsible for leading the North Atlantic Fisheries Organization (NAFO) to recommend reopening the commercial yellowtail flounder fishery in international waters 1998 (DFO 2000: 11).

⁷⁵ A similar endeavour has been undertaken by Clearwater Fine Foods, Inc., another processing company based in Nova Scotia. The company has formed a partnership with Fisheries and Oceans Canada to fund extensive multi-beam mapping in order to produce three-dimensional maps of the Brown's Bank area, where they harvest large quantities of scallops (Pickrill and Todd 2003). In exchange for sharing their data with DFO and entering into a co-management agreement, they have been granted exclusive harvesting rights in that area. These mapping efforts have proven to be very profitable for the company, as they have led to the discovery of significant beds of mature scallops, which were previously unknown (Tutton 2006).

⁷⁶ Most of the research on the Arnold's Cove plant that was carried out as part of this study was carried out by Anna Kay Buckley (Fishery Research Group 1986).

⁷⁷ In the first half of the twentieth century, the Wareham family operated two of the largest and most successful fish merchant operations on the south coast of Newfoundland, located in the communities of Spencer's Cove and Harbour Buffett. Both towns were located on Long Island, in the middle of Placentia Bay. Alberto Wareham had established a firm in Spencer's Cove in the early 1900s and soon took over the already existing Harbour Buffett operation, which had been operating under different ownership since the 1850s (Tulk 1997: 120). Together the two businesses became very important power brokers on the south coast, playing a key role in the salt cod, herring and live lobster trades. The company also owned and operated a fleet of schooners, which would regularly fish in the extremely rich Golden Bay off Cape St. Mary's. They also operated a number of coastal boats that would travel along the south coast of the island collecting fish and bringing it back to Long Island for processing. Over time, this trade gradually displaced many of the older and more established merchant operations in the area. The Warehams owned several larger ocean-going vessels as well, which would regularly travel to Spain, Portugal, the West Indies, Brazil, the United States, and the Canadian mainland selling fish and collecting a variety of other goods to be sold in Newfoundland, such as salt, coal, flour, fruits and vegetables, molasses and rum (Tulk 1997). By the 1920s, Harbour Buffett had a bank, a nursing station, a post office, a customs office, a fisheries office, a telegraph office, a police station, and eight large oil tanks which supplied electricity. It was home to "fishermen, seamen, coopers, blacksmiths, tinsmiths, boat builders, sail makers, carpenters, labourers, and clerical and business staff" (Tulk 1997: 140). As a result of their strong links with places within and beyond Newfoundland, people living in Harbour Buffett and Spencer's Cove felt far from remote. A resident of Arnold's Cove who had spent his youth in Harbour Buffett told me that he was regularly exposed to a wide range of imported food items, including fresh fruit (apples, oranges, and bananas), and was quite accustomed to meeting people who had come from distant places. Over time, a fierce rivalry developed between Alberto Wareham's two sons, who had taken over the two merchant operations on the island. Several interviewees said that this stemmed from a fierce competition to gain control of the bay's rich herring fishery. Despite these squabbles, both operations continued to prosper. By the 1950s, a major herring processing factory had been built in Spencer's Cove. They had also built a lobster processing and canning facility and had developed a lucrative trade shipping live lobsters directly to the Boston market. The Harbour Buffett operation also collected live lobsters, but these were generally sold to Maritime Packers in Nova Scotia and transhipped from there. They also had a smaller herring factory and had built a large mechanical fish drying facility to accelerate the production of dried and salted cod and other fish. It was reportedly one of the most advanced facilities of its kind anywhere in North America at that time. Both businesses had also established a variety of smaller stores in various towns around the bay. The Wareham's stronghold on the area was, however, significantly weakened by new federal and provincial economic development programs in the post-Confederation era. Spencer's Cove, Harbour Buffett, and all other island communities in Placentia Bay were resettled during the 1960s because of their "remote" location from the

point of view of planners who sought to develop land-based industries, build new infrastructure, and administer new social programs.

⁷⁸ The fish that High Liner does not purchase is generally either: sold to other North American buyers and used in the restaurant trade; shipped to other buyers in England or France; or sold in bulk to major retail chains, most notably Sam's Club, a subsidiary of Walmart.

⁷⁹ In many respects, this situation resembles that described by Kondo (1990) in her book *Crafting Selves: Power, Gender and Discourses of Identity in a Japanese Workplace*. Kondo examined the ways in which workers at a large Japanese company were required to go through a series of team-building activities in order to increase their loyalty and commitment to their place of work.

⁸⁰ The trawler also harvests some flatfish (flounder and halibut) which are filleted at the plant using its one flatfish processing machine and then smoked in the smoke room on site. The smoke room was historically used mostly for herring (Fishery Research Group 1986), but its usage has changed over time.

⁸¹ While Buffett's family has apparently traced his roots to the community of Rose Blanche on the southwest coast of the island (Smith 2005), it seems safe to assume that he is also a distant relative of those that first established the community of Harbour Buffett in Placentia Bay.

Chapter 7

⁸² In recent years, these federal-provincial tensions have flared up again. The current Premier of Newfoundland and Labrador, Danny Williams, has been successful in pressuring the federal government to allow the province to keep a greater share of oil revenues. Williams, who swept to power in 2004, immediately launched a highly publicized campaign to revisit the Atlantic Accord in order to ensure that Newfoundland was the "primary beneficiary" of petroleum development, as was promised in the original *Canada-Newfoundland Atlantic Accord Implementation Act*. To that point, the province had, in effect, been penalized 70 cents in federal equalization payments for every dollar that it made from offshore oil, resulting in a net gain of only 30 cents. Williams argued that this was an unfair arrangement which, if left unchanged, would leave the province with no hope of prospering economically and shedding its status as a "have not" province. Williams' decision to remove all Canadian flags from government buildings in protest raised the ire of many journalists in major Canadian newspapers, but was successful in drawing a great deal of attention to the case during a closely contested federal election. It added fuel to the longstanding arguments of many national columnists that the province was biting the hand that feeds it and failing to acknowledge the benevolent investments made by the federal government in: social programs, healthcare, social welfare, employment programs, pensions, infrastructure (national parks, roads, wharves, etc.), and in providing compensation for displaced fishery workers after the moratorium and seed funding to get the oil industry off the ground in the first place (Keller 2005; Simpson 2005; Wente 2005). In St. John's and elsewhere in Newfoundland, the Premier's actions were generally well-received. His hard line stance was portrayed by many Newfoundland writers as a long-overdue attempt to rectify the 'raw deal' that the province had received in Confederation (Riche 2005). Increased oil revenues were seen as providing a possible redress for the myriad of misguided resource development deals that had been made by previous provincial and federal administrations, which had left the province with a poor return on the sale of its natural resources and kept it in a disadvantaged state relative to other Canadian provinces. Williams' actions sparked a resurgence of nationalist sentiment in some parts of the province, and the long-abandoned pink, white and green flags of the Republic of Newfoundland soon began flying off the shelves (Quinn 2005). Many were optimistic that the new deal struck by Williams will enable Newfoundland gain a greater share of the wealth from existing projects and put it in a good position to capitalize on any future discoveries, but this enthusiasm has been dampened somewhat by a decision by the new Conservative government to renege on their campaign promise to honour the offshore petroleum revenues deal that had been struck by the outgoing Liberals. Williams has demanded a better deal from oil companies as well, although this move has

drawn criticism from many in the industry and, in some cases, provoked threats to halt plans for future developments, including the Hebron-Ben Nevis and Hibernia South projects (Cattaneo 2005, Park 2005, Ebner 2007).

⁸³ A parallel board, called the Canada-Nova Scotia offshore Petroleum Board (C-NSOPB) was established to regulate the Nova Scotia offshore area.

⁸⁴ Biotechnology companies in the province include: those working on "isolating antifreeze proteins from the blood plasma of cold water fish species" for use in medicine (preserving tissue and other organic materials), food technology (keeping ice cream and vegetables from spoiling) and cosmetics"; developing vaccines and isolating fish growth genes for use in the aquaculture industry; and manufacturing nutraceuticals from kelp, seal oil, berries, and crab and shrimp shells (Industrial Research Assistance Program, no date).

⁸⁵ de la Mare (2005) argues that the distinction between the "Precautionary Principle" and the "Precautionary Approach" is not merely semantic. Discussing the case of Canadian fisheries management, he writes: "While the precautionary *principle* has been adopted by a number of international and national fisheries management organizations, it has mainly been implemented as the precautionary *approach*... The precautionary *principle* places the burden of proof on development proponents to prove that any harm resulting from their operations will be reversible, placing the emphasis on proponents to develop *safefail* systems where unexpected outcomes will not lead to catastrophic ecological effects... Fisheries managers are not to delay cost effective conservation measures simply because they lack definitive scientific evidence or undisputed data on damaging fishing practices and other economic activities in the marine environment. The precautionary *approach* places the burden of proof on regulators to calculate cost benefit analyses illustrating that restrictions on fishing and other marine development activities do not, on balance, irrevocably or unnecessarily harm the economy. While the precautionary *principle* implies a deontological ethical framework that places strict limits on human activity, the subtle shift in terminology from the precautionary principle to the *approach*, promotes a permissive utilitarian ethical stance focused on maximizing the greatest good for the greatest number of human or corporate economic actors. DFO's precautionary *approach* provides the very ethical framework and burden of proof requirement which the precautionary *principle* was designed to avoid and eliminate" (Holling 1976; VanDeVeer and Pierce 1998; Coward *et al.* 2000, referenced in de la Mare 2005, emphasis in original).

⁸⁶ A similar movement has developed in the fish processing industry through the Marine Stewardship Council, "an independent, non-profit and non-governmental organization" formed through a partnership between the World Wildlife Fund and Unilever, which is one of the world's largest seafood buyers. The agency has developed a code of conduct, and seeks "to define principles and criteria for sustainable fishing and to enforce these by issuing accreditation certificates to the fisheries or management regimes – that meet them and ask for accreditation" (Mikalsen and Jentoft 2001: 288). In August, 2008, it was announced that the Newfoundland-based trawl fishery for northern shrimp had been certified as a "sustainable fishery" by the MSC (Canadian Broadcasting Corporation 2008).

⁸⁷ In practice very few of these birds survive. Seabirds have an undercoating of feathers that insulates them from the cold water of the North Atlantic and once this layer has been damaged by oil the birds often die of hypothermia. While some birds have been successfully cleaned and reintroduced into the wild, critics have pointed out that survival rates remain very low and success stories are few and far between.

Chapter 8

⁸⁸ For more than a century Botwood has served as the point of export for the newsprint produced at the large paper mill in Grand Falls to the south. It has subsequently become the point of import for a variety of products, including gasoline, asphalt, and road salt. The town also played a key role during the Second

World War, serving as a vital seaplane base for the Canadian Air Force. While many complain that the port has fallen into disrepair, it continues to be a key piece of infrastructure in central Newfoundland.

⁸⁹ Some in the town would also board northbound schooners each spring to take part in the Labrador fishery, but this practice had largely come to a halt by the beginning of the twentieth century.

⁹⁰ Bycatch is fish that is caught in the nets of vessels that are actually targeting other species.

⁹¹ While most of those involved were impressed with the results of the endeavour, it did not develop into a commercial operation due to the high cost of feed and the lack of a reliable supply of wild cod.

⁹² Lien notes that Bill C-98, which was introduced in the mid 1990s faced "a very rough ride" in Parliamentary Hearings and this delayed the establishment of the NMCA Act considerably (1999: 3).

⁹³ In many respects, the criticisms levelled against the NMCA echo the critiques of national parks and other "conservation enclosures" that have been articulated by many critical anthropologists and environmental historians (Hecht 2004; Kosek 2004; Neumann 2004). These scholars have argued that efforts to set aside particular areas as pristine "wilderness" have served to obscure the human history that has helped to shape these spaces and this has frequently been used to undermine longstanding livelihood strategies.

⁹⁴ For the two years prior to that point, the task of developing new *Oceans Act* programs had been overseen by various individuals in the agency's Habitat Management Branch. When the Oceans and Environment Branch was created, most of these individuals assumed leadership positions within it.

⁹⁵ In between each of these exclusive zones was a buffer zone, in which both groups could fish (Davis et al. 2006).

⁹⁶ This unique colour is believed to be caused by "their carotenoid-rich diet of invertebrates" (The Coastal Current 2007)

Chapter 9

⁹⁷ Because Placentia Bay had a longer fishing season and historically had access to strong inshore cod stocks, very few fishers chose to train out of the fishery at the time of the moratorium. This meant that many got core status and were granted crab permits. While inshore crab stocks in Placentia Bay have been relatively abundant as compared with many other areas, the wealth derived from that fishery has had to be shared between many more hands. At the time of research, there were three major processing plants operating in the bay (Arnold's Cove, Marystown, and St. Lawrence), along with several much smaller subsidiary plants in other communities, including St. Brides and Baine Harbour, and the secondary processing plant in Burin.

⁹⁸ The mining industry did have a significant presence in Placentia Bay prior to this point, but this had more to do with the availability of mineral deposits and less to do with the advantages that the bay offered in terms of marine transportation. In 1858, the La Manche galena (lead) and zinc mine near Southern Harbour came into production and, by the turn of the century, it had blossomed into a significant operation before eventually being abandoned. A second deposit near Argentia containing silver, zinc and lead was discovered in 1882 and worked steadily until 1898, when it too was shut down. The third significant mining operation in the bay was the flourspar mine in St. Lawrence. The deposit was first discovered in 1933 and was mined intermittently until the 1980s. The mine had tragic consequences for people in the region, as it was later found to have caused very high rates of cancer and lung disease among its workers, resulting in hundreds of premature deaths and many other health complications (Leyton 1975; Rennie 2001).

⁹⁹ This had enormous consequences for the town's residents. It ultimately resulted in the destruction of 350 homes and buildings and the relocation of 160 families. It also required that all of the occupants of the town's cemetery be exhumed and reinterred elsewhere (Houlihan 1992: 53). While this process was undoubtedly very unsettling for the relatives of the deceased, this course of action only came about as a result of fierce negotiations with the US Navy, which had originally planned to simply pave over the cemetery (ibid: 53). As disruptive as the construction of the base at Argentia was, it did bring

unprecedented prosperity to many area residents. The base employed approximately 15,000 Newfoundlanders and provided many with training in various skilled trades (Matthews 1987; Town of Placentia 1994; Argentinia Management Authority n.d.). While operations at the base were reduced following the war, the American military presence at Argentinia persisted for several decades before the base was finally closed down in 1994 (Smith and Joy 1992). The base has also left behind a very negative environmental legacy, and there are growing concerns about damage to the marine environment stemming from contaminated waste leaching into the sea from the base. In recent years a remediation project has been ongoing at the site, receiving some funding from the Canadian and US government.

¹⁰⁰ Thirty-one small communities were resettled under the Centralization Program in the 1950s and this was followed by an even greater displacement under the Fisheries Household Resettlement Program. Between 1968 and 1969 alone, about one thousand families from twenty-nine different communities in Placentia Bay were resettled (Tulk 1997: 91). Most moved to designated resettlement centres in the bay, such as: Placentia, Burin, Marystown, Arnold's Cove, Lawn and Long Harbour (Tulk 1997). While most people ultimately agreed to resettle, some families fought it vociferously (Matthews 1976; Thurston 1982). Resettlement was also opposed by many of the merchants who had businesses on the islands, because they would receive nothing as compensation for their lost customers, buildings and infrastructure (Matthews 1987). In spite of this resistance, all residents of the islands were eventually moved and only a few mainland communities were successful in lobbying to have the government's decision reversed.

¹⁰¹ Within months of its opening, large quantities of phosphorous from the mine leaked into the ocean, causing thousands of herring and other fish to turn up dead. Many of the fish had red around their gills as a result of phosphorous poisoning, leading the media to dub the event: "The Red Herring Scare." In the aftermath of the incident, the fishery was closed down in the inner part of the bay. Although there were serious concerns that it would have to remain closed for several more years and may never fully recover, it was ultimately decided to reopen it later that year (Legge 1982). The ERCO plant went on to operate successfully for the next twenty-one years, but when it finally closed down in 1989, it left the town scarred by numerous toxic slag heaps and put more than three hundred people out of work. While there have been longstanding accusations that pollution at the site has impacted negatively on area residents in the form of cancers and blood abnormalities, studies have failed to prove that these ailments are correlated with the presence of the mining complex (Strowbridge 1989; Jackson 1992).

¹⁰² Today, all that remains are the ruins of two large cement buildings, which lie at the end of a long dirt road behind the Come by Chance oil refinery. The mill had been built as an incentive to lure entrepreneurs to invest in the site. This proved a difficult sell, however, due in large measure to the relative shortage of useable wood in eastern Newfoundland, and the already voracious demand for trees in central and western Newfoundland by the province's two other paper mills in Grand Falls and Corner Brook. The Newfoundland government had speculated that the mill could succeed despite the wood shortage, by importing wood from Labrador. It was also suggested that it would benefit from the fact that, unlike the other two mills in the province which were sometimes encumbered by winter ice, the Come by Chance site had the advantage of being able to ship products to market year round. Despite Smallwood's proposal to give the new buildings to any company willing to operate the mill, in the end, none deemed it to be economically feasible.

¹⁰³ The refinery was started by John Shaheen of Shaheen Natural Resources Company, Inc., an American industrialist with close ties to US President Richard Nixon (McGrath 2002). Shaheen's intention was to take advantage of Newfoundland's strategic location close to major shipping routes by purchasing heavy oil from the Middle East and elsewhere and refining it for sale in the US and Canadian markets. In Smallwood's eagerness to get the project off the ground, his government agreed to provide Shaheen's group with an unsecured loan of approximately \$30 million to build the facility. This was supplemented by additional grants from the federal government (McNight 1986). The refinery opened with a great deal of

fanfare in 1973, including a visit from the QEII cruise ship, then the "largest and most opulent ocean liner in the world" (McGrath 2002).

¹⁰⁴ In the 1980s, construction began on a new steel fabrication and construction platform at Cow Head, which was essentially an extension of the shipyard at Marystown. This enabled the site to play a major role in servicing the drilling rigs and supply vessels that were being used in the oil exploration boom that was taking place on the Grand Banks. The Marystown shipyard and the Cow Head industrial fabrication facility went on to play important roles in various construction and maintenance projects associated with the Hibernia, Terra Nova White Rose platforms as well as functioning as a construction and service centre for supply vessels that are used in the industry (Fisheries and Oceans Canada 2003; Westcott and Chafe 2005; Canadian Broadcasting Corporation 2005). The towns of Arnold's Cove and Come by Chance at the head of Placentia Bay have also benefited from the petroleum industry. The Bull Arm construction site, just a short drive away from the communities played a central role in the construction of the Hibernia platform in the 1990s, employing close to 6,000 workers at its peak (Jang 1995). Bull Arm also handled some of the secondary work on the Terra Nova platform, which was primarily built in South Korea. This created approximately 1000 more full-time jobs (Jang 1998). While these developments brought significant employment benefits for people living in the surrounding area, some of those interviewed complained that trade union hiring practices severely curtailed the extent to which area residents were able to benefit from these projects.

¹⁰⁵ As of 2005, the site employed about 21 people and considerably more jobs were created aboard the large shuttle tankers that service the site (The Oil & Gas Magazine 2005a). The facility is managed and operated by International-Matex Tank Terminals (IMTT) of New Orleans, LA and owned by Newfoundland Transshipment Limited (NTL), which is jointly funded by various oil companies that own a stake in either the Hibernia or the Terra Nova project, including Petro-Canada, Norsk Hydro, Exxon-Mobil, Chevron-Texaco, and Murphy Oil Co. (Newfoundland Transshipment Ltd. 2004; The Oil & Gas Magazine 2005a; Canadian Broadcasting Corporation 2005f).

¹⁰⁶ The vessels, which are named the Komatik, the Mattea, and the Vinland, are all registered in Newfoundland. Each is capable of carrying about 860,000 barrels of oil (The Oil & Gas Magazine 2005c). Shuttle tankers will occasionally take extraordinary large loads directly to their destination, but this not very common. As of 2005, the Whiffen Head facility received about 300 tanker visits annually, including about 130 shuttle tankers and about 170 second leg tankers (The Oil & Gas Magazine 2005a).

¹⁰⁷ Interviews indicated that second leg tankers were most commonly registered in either Monrovia, Panama, the Bahamas, or Liberia.

¹⁰⁸ On occasion, crude has been shipped to farther destinations, such as Texas or even to sites on the west coast of North America, via the Panama Canal. In some cases, oil may also be shipped directly to market, bypassing the IMTT facility altogether. The White Rose platform in particular has opted for this approach, and is designed to ship oil directly to market using specialized tankers (The Oil & Gas Magazine 2005a).

¹⁰⁹ The company was a subsidiary of Cumberland Farms, a large Massachusetts-based gasoline retailer (McNight 1996).

¹¹⁰ The refinery had previously been purchased in 1980 by the Canadian company Petro-Canada, although it was never operated during Petro Canada's tenure. It reopened shortly after the sale to Cumberland Farms, creating 500 hundred jobs (Flanagan 1998).

¹¹¹ Despite these transactions, employment has remained relatively stable and the refinery now employs about 550 people (Canadian Broadcasting Corporation 2006j).

¹¹² Despite the fact that it is less efficient to do so, Come by Chance has processed some Grand Banks oil in years past.

¹¹³ Bay d'Espoir and Fortune Bay to the west of Placentia Bay already contain extensive salmon and cod aquaculture development and plans are underway to expand the presence of the industry in these areas

considerably. Interviews with development board officials in Placentia Bay indicated that several large European and Canadian aquaculture companies had expressed a strong interest in developing cod aquaculture operations in Placentia Bay as well, particularly in areas on the western side of the bay, which have less direct exposure to strong ocean currents. Placentia Bay also has the strongest remaining wild cod population in the province and has been identified as an area with a strong potential for cod growout programs, in which fish born in the wild are captured and fed so that they will grow faster than they would if left to their own devices.

¹¹⁴ This route has operated regularly since 1968.

¹¹⁵ Large container ships operated by Icelandic shipping giant Eimskip visit the port on a regular basis, carrying everything from frozen fish to cement to cars. The town also houses a large cold storage facility, which serves as the main landing point for a wide variety of fish species, which are caught by international fleets on the nose and tail of the Grand Banks and the Flemish Cap.

¹¹⁶ Perhaps the most revolutionary change in ocean science and technology in recent years has been the advent of "multi-beam bathymetric mapping" or "3-D seismic" as it is more conventionally known (Boswell 2003). The process makes use of devices which are carried over a particular area of the sea by specialized vessels. As the vessel moves, the device deploys "dozens, even hundreds of pulsating sound signals that are bounced off the seabed in a fan-shaped array" (ibid: A5). The data this generates is then processed by a computer system aboard the vessel, which generates a highly detailed 3-dimensional image of the shape and elevation of the ocean floor. These images are far superior to those created by "echo sounders" in previous eras (ibid.). This new technology has led to dramatic advances in a variety of fields, including underwater archaeology, the identification of navigational hazards, the laying of deep sea cables and pipelines, and the mapping of continental shelves (Boswell 2003; Pickrill and Todd 2003). A secondary product of this work is what is commonly called "backscatter." For each sonic beam created, the computer also records its "backscattered acoustic imagery." This "shows how hard or soft the scanned surface is" and can be used to "more easily classify the kinds of rocks and sediments on the sea floor" (ibid: A5). This has immediate applications in the offshore petroleum sector because it can help to identify areas of high promise for drilling. Backscatter data can also be overlaid with other sources of data, such as information on local flora and fauna, salinity, and currents, to produce more detailed habitat maps.

¹¹⁷ It would, of course, also allow investors to remove their money quickly in the event of an environmental disaster or another unforeseen event.

¹¹⁸ The Automatic Identification System (AIS), which is now installed on most large vessels, automatically transfers information about that vessel, such as its name, function, country of ownership, direction and speed to other boats and to monitoring stations based on land.

¹¹⁹ The capacity of historically and geographically rooted communities to speak with a single voice will be tested in the years ahead by the indigenous people of Newfoundland and Labrador. Although they were excluded from Canada's *Indian Act* due to the fact that the province joined Canada much later than other provinces and did not wish to have the legislation apply, recent years have witnessed the emergence of several large aboriginal land claims in the province. This includes those made by the Innu Nation, the Labrador Inuit Association and the newly formed Labrador Métis Nation in Labrador (Burke 2003). The Labrador Inuit Association claim, which was settled in 2005, is particularly interesting, because it is one of the first in Canada to include a significant marine component (Indian and Northern Affairs Canada 2004). In each of these cases, new co-management agreements are being developed, which demand that these groups develop a unified perspective on how they wish to move forward. Although no active land claims negotiations are ongoing on the island of Newfoundland, the Mi'kmaw people living in Newfoundland have long argued that their ancestors arrived prior to the arrival of the first permanent European settlers and, as a result, they should be allowed to make claims as well. This assertion has long been disputed by the

provincial and federal governments, on the grounds that no physical evidence has been found to prove that they arrived when they say they did (Wetzel 1995).

¹²⁰ The pilot boats operating in Placentia Bay are operated by a Halifax-based crown corporation called the Atlantic Pilotage Authority.

¹²¹ Tankers must also be accompanied by a tug boat during the final leg of their journey, to assist them with docking.

¹²² For many, these concerns were amplified by their knowledge of the events that followed the major oil spill caused by the *Prestige*, a large oil tanker that sunk off the Galician coast of Spain in 2002. The spill caused tremendous environmental damage and had a major economic impact on the fishing industry, both through direct contamination of the surrounding area and through the loss of market share that followed (Garza-Gil et al. 2006). The problem was made worse by a legal environment which made it very difficult to hold the petroleum industry accountable for absorbing the costs associated with cleanup operations (García Pérez 2003). This situation resulted in the formation of "Nunca Mais" (Never Again), a broad-based social movement that organized a series of popular demonstrations aimed at achieving policy reforms which would eliminate the possibility for this sort of "delinquent capitalism" to be allowed to occur in the future (ibid: 220).

¹²³ A number of other mechanisms have also been put in place to improve communication and reduce conflict between the various maritime users of the bay. Since the 1970s, the Canadian Coast Guard has chaired a Placentia Bay Traffic Committee with representation from: the oil industry, the pilotage authority, shipping agents, the Newfoundland Aquaculture Association, and other key users of the bay. It also chairs a Regional Advisory Council on Oil Spill Response which invites public input into issues relevant to oil spill response in the region. Several private-sector initiatives have been introduced as well. These include: a Come by Chance community liaison committee and IMTT committees dealing with both "community relations" and "fishery relations."

¹²⁴ In 2006, Transport Canada began a series of public consultations with a view to updating this framework and reassessing the risk of an oil spill on Newfoundland's south coast during the next decade.

¹²⁵ There are further concerns about the effectiveness of response measures in containing spills that occur in the rough water that is typical off the Newfoundland coast. This was very much apparent in the case of an oil spill that occurred offshore at the Terra Nova Rig in 2004, in which very little of the oil was deemed to be recoverable (Baird 2004).

¹²⁶ While inshore crab stocks in Placentia Bay have been relatively abundant as compared with many other areas, the wealth derived from that fishery has had to be shared between many more hands.

¹²⁷ Tensions between the commercial fishery and the offshore petroleum industry are, of course, not unique to Newfoundland. Conflicts between the two industries in the North Sea during the 1980s were well documented and, more recently, discussions about possible offshore drilling off the coasts of Florida and British Columbia as well as in the Gulf of St. Lawrence and on George's Bank have sparked vocal protests from fishers, many of whom have expressed concern that oil pollution, seismic testing and/or offshore pipelines could have a negative impact on their industry (Cox 2000; Meissner 2004; Morton 2006).

¹²⁸ The new refinery is slated to employ about 3000 people during the construction phase and create 750 permanent full-time jobs once it is up and running (Daly 2006).

¹²⁹ There has, however, been some speculation that these expansion plans may have been derailed by the recent sale of the refinery to a new ownership group that has yet to make its intentions clear (Canadian Broadcasting Corporation 2006i).

¹³⁰ The project is predicted to create 300 jobs in the construction phase and another 100 full-time jobs upon completion (Squires 2006d, 2007).

¹³¹ The original plan was to build the smelter in Argentina, but the company eventually decided on Long Harbour instead. While there are some concerns about negative health and environmental outcomes that

may result from the smelter, the economic boost it will provide has come as welcome news to many in Long Harbour, which has struggled to attract new employers after the ERCO phosphorous plant closed down in 1989, resulting in the loss of about 400 jobs. A proposal to build an incinerator in the town to burn imported garbage from the United States was eventually abandoned due to public opposition to the idea. Instead, many people in the town have instead opted to commute an hour each way to work in St. John's where employment is more plentiful. The smelter has already encountered some public opposition, however, due to the refusal of the provincial and federal governments to force the company to not dump waste material into the surrounding watershed and instead create a designated tailings pond which is reinforced to prevent leakage into the water table.

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